

Alaris® DS Docking Station

Technical Service Manual

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1 General information

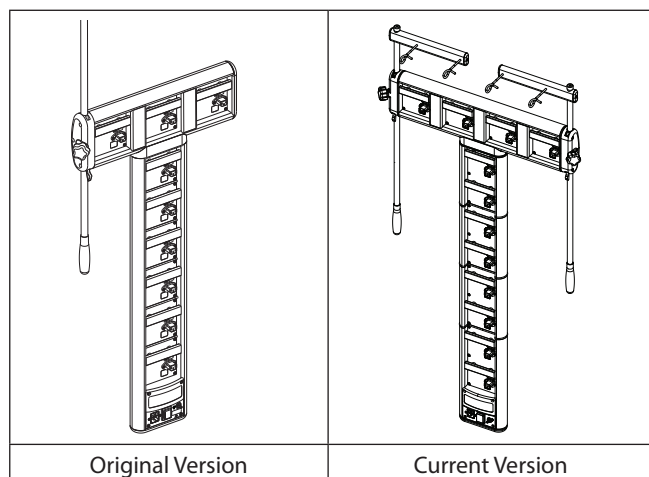
Introduction

The Alaris® DS Docking Station (herein after referred to as “Docking Station”) is designed as a modular system, containing modules for the complete range of Alaris® Infusion Pumps family.

The Alaris® DS Docking Station has been manufactured with two different versions.

The versions are:

- Original version - identified by being made of one vertical and one horizontal section with a model number (SKU) starting with 8008.
- Current version - identified by being of modular design comprising vertical sections of two tiles and horizontal sections of two/ three tiles with a model number (SKU) starting with 8028.



For the information specific to the Original Version please see the Appendix at the back of this Technical Service Manual

Familiarity

Ensure that you are fully familiar with this Docking Station by carefully studying the Directions for Use (DFU) prior to attempting any repairs or servicing.

As part of a policy of continuous improvement, product enhancements and changes are introduced from time to time.

Purpose

This Technical Service Manual shows how to set up, test and maintain the Docking Station.

It is intended for use by personnel experienced in medical equipment testing and maintenance procedures.

Conventions Used in this Manual

BOLD	Used for Display names, self-test codes, controls and indicators referenced in this manual, for example, Battery Indicator , access code 212 , ON/OFF button.
'Single quotes'	Used to indicate cross-references made to another section of this manual. For example, see Chapter 2, 'Configuration & Calibration'.
underline	Used to indicate a link to another section within this manual.
<i>Italics</i>	Used to refer to other documents or manuals. For example, refer to the relevant Directions for Use (DFU) for further information. Also used for emphasis, for example, ...if the gap <i>still</i> measures less than...
	Wherever this symbol is shown a Hints & Tips note is found. These notes provide useful advice or information that may help to perform the task more effectively.
	Wherever this symbol is shown an Update note is found. A typical example is drawing attention to a software upgrade that should be confirmed has been installed.
	Wherever this symbol is shown an Important note is found. These notes highlight an aspect of test or maintenance that is important to know about.

General precautions

	Please read the general Operating Precautions described in the Directions for Use carefully prior to using the Docking Station.
	This Docking Station contains static-sensitive components. Observe strict precautions for the protection of static sensitive components when attempting to repair and service the Docking Station.
	An explosion hazard exists if the Docking Station is used in the presence of flammable anaesthetics. Exercise care to locate the Docking Station away from any such hazardous sources.
	An electrical shock hazard exists if the Docking Stations casing is opened or removed. Refer all servicing to qualified service personnel.
	Use extreme caution when servicing equipment whilst it is connected to the AC mains.
	If the Docking Station is dropped, subjected to excessive moisture, humidity or high temperature, or otherwise suspected to have been damaged, remove it from service for inspection by qualified service personnel.
	When connected to an external power source, a three-wire (Live, Neutral, Earth) supply must be used. If the integrity of the external protective conductor in the installation or its arrangement is in doubt, the Docking Station should be removed from service..
	Always visually inspect the tiles, power cord and plug for damage. If the power cord or plug are damaged they should be replaced.

2 Technical Feature Description

The Docking Station provides the link of modularity between the Alaris® Syringe Pumps and Alaris® Volumetric Pumps. A common docking interface provides the mains supply and easy mechanical mounting in one action, without the need for cables. Only a single mains inlet is required. The power tile at the base of the Docking Station provides the AC Mains supply and the Potential Equalisation connector.

The Docking Station has a unique, flexible mounting system - the Medical Device Interface (MDI) - mountable to a trolley or any suitable horizontal rectangular bar.

The Docking Station is simple to set up with an adaptable modular design. The Docking Station has its own power distribution circuit. The AC power is supplied via a standard IEC connector into the power tile. An illuminated isolator mains switch shows when the power is on. There is a double fuse holder protecting the AC inlet. If the AC power switch does not illuminate when the Docking Station is switched on, suspect that either the power supply fuse in the AC plug, or the internal fuses have blown. First check the power supply fuse in the AC mains plug. If the AC power switch still does not illuminate remove the equipment from service.

3 Test Procedures

Electrical Safety Checks

The following procedure is designed to test the electrical function and safety of the Docking Station. It should be performed on all units after any maintenance, and at least once per year.



WARNING: The following procedures use Mains Voltage and high test currents. Appropriate precautions against electric shock should be taken at all times.

- Connect the Docking Station to a mains supply. Move the power switch at the base of the Docking Station to the 'ON' position and check that it lights up.
- Note:** Ensure that no physical contact is made with the unit under test during the electrical safety test cycle.
1. Connect a Medical grade electrical safety tester, (e.g. Safety Tester) to a main's outlet, ensuring that the connections for Live and Neutral are correct.
 2. Connect the enclosure lead to the PE point of the Docking Station. Plug the mains test lead from the safety tester into the Docking Station mains inlet.
 3. Switch on the Docking Station.
 4. Set up and perform a standard electrical safety test to IEC/EN60601-1 Class I, using an Earth Continuity test current of 25A. If the safety tester requires an applied 'Type' to be entered, select 'Type B' but no applied parts should be specified.

The required test result limits are as follows:

Protective Earth Resistance (All test Points)	< 100mΩ
Current Consumption	< 300mA
Insulation Resistance	> 200MΩ
Earth Leakage current:	
• Open Supply - (OS)	< 1000μA
• Normal Condition - (NC)	< 500μA
• Open Supply Reverse Mains - (OSRM)	< 1000μA
• Normal Condition Reverse Mains - (NCRM)	< 500μA
Enclosure Leakage current:	
• Open Supply - (OS)	< 500μA
• Normal Condition - (NC)	< 100μA
• Open Earth - (OE)	< 500μA
• Open Supply Reverse Mains - (OSRM)	< 500μA
• Normal Condition Reverse Mains - (NCRM)	< 100μA
• Open Earth Reverse Mains - (OERM)	< 500μA

Electrical Safety Test

PE Connector - Earth Continuity Test

1. Connect the AC lead from the Safety Tester to the Docking Station Mains Inlet.
2. Connect the enclosure lead from the Safety Tester to the PE stud on the rear cover of the Docking Station with a crocodile clip.
3. Perform the Earth Continuity Test.
4. Disconnect the enclosure lead from the PE stud.

IEC Mains Outlet Screw/Tile - Earth Continuity Test

1. Apply the free end of the enclosure lead firmly to one of the IEC Mains Outlet screws on the bottom tile.
2. Perform the Earth Continuity Test.
3. Repeat the test for one screw on every IEC Mains Outlet in turn.
4. Repeat the test for one screw on the tile plate.

Tile Module/Mounting Bar - Earth Continuity Test

1. Fit a high current probe to the enclosure lead.
2. Firmly apply the probe point to one of the module tile plate mounting screws.
3. Perform the Earth Continuity Test.
4. Carefully apply the probe point to one end of the tile mounting bar.
5. Perform the Earth Continuity Test.
6. Repeat the test for each tile mounting bar in turn.



Note: Ensure that, in all cases, the resistance to earth of any continuity test does not exceed 100mΩ.

IEC Outlet Earth Pin - Earth Continuity Test

1. Connect the enclosure lead to the Tile IEC Earth Point.
2. Fit the test equipment to the rear IEC Mains Outlet.
3. Perform the Earth Continuity Test.
4. Repeat the test for each IEC Mains Outlet in turn.



Note: Ensure that, in all cases, the resistance does not exceed 100mΩ.

Insulation Resistance Test

1. Disconnect the Earth Lead from the Tile IEC and reconnect the enclosure lead to the crocodile clip.
2. Attach the crocodile clip to the PE stud on the rear cover of the Docking Station.
3. Perform the Insulation Resistance Test.

Earth and Enclosure Leakage Current Test



Ensure all Earth Continuity Tests and the Insulation Resistance Test results pass before proceeding with the Earth and Enclosure Leakage Current Test.

1. Connect the Safety Tester AC lead to the Docking Station Mains Inlet.
2. Ensure that the enclosure lead is connected to the PE stud.
3. On the Safety Tester, conduct a single Earth Continuity Test.
4. Disconnect the Safety Tester from the Docking Station.

4 Routine Maintenance

Routine Maintenance Procedures

To ensure that all parts of the Docking Station remain in good operating condition, it is important to keep it clean and perform the routine maintenance procedures described below. All servicing should only be performed by a qualified service engineer.

Interval	Routine Maintenance Procedure
When turning ON	Check that the ON/OFF switch is illuminated when in the ON position.
When loading pumps	Check that each pump is properly located on its electrical connectors and is mechanically locked into position.
When removing pumps	Check that the red LED on the docking tile turns OFF when the pump is removed. If the LED stays ON, the Docking Station should be serviced by a qualified service engineer.
As required	Thoroughly clean external surfaces of the equipment before and after prolonged periods of storage
After servicing	On final assembly check that all connectors are correctly fitted and located, ensuring that all earth cables are tightly secured to the extrusion and that there are no loose items within the assembly. Check that all the labels are correctly located, that there are no scratches or damage.
12 Monthly	- Inspect AC outlets, communication connectors and the AC inlet for damage. - Perform electrical safety checks (see 'Test Procedures'). The complete unit leakage current must be measured. If more than 500µA the equipment should not be used, but should be serviced by a qualified service engineer.



If any item is dropped, damaged, subjected to excessive moisture or high temperature, take it out of service immediately for examination by a qualified service engineer.

Cleaning and Storage

Before the transfer of the Docking Station to a new patient and periodically during the use, clean the Docking Station by wiping over with a lint-free cloth lightly dampened with warm water and a standard disinfectant / detergent solution.

Do not use the following disinfectant types:

- NaDcc (such as PRESEPT)
- Hypochlorites (such as CHLORASOL)
- Aldehydes (such as CIDEX)
- Cationic Surfactants (such as Benzalkonium Chloride)
- Iodine (such as Betadine)
- Concentrated Isopropyl alcohol based cleaners will degrade plastic parts.

Recommended cleaners are:

Brand	Concentration
Hibiscrub	20% (v/v)
Virkon	1% (w/v)

The following products were tested and are acceptable for use on the Alaris® DS Docking Station if used in accordance with the specified manufacturer's guidelines.

- Warm soapy water
- Mild detergent in water (e.g. Young's Hospec)
- 70% Isopropyl Alcohol in water
- Chlor-Clean
- Clinell Sporidical wipes
- Hibiscrub
- TriGene Advance
- Tristel Fuse sachets
- Tristel Trio wipes system
- Tuffie 5 wipe
- Virkon Disinfectant
- Virusolve+ (Ready To Use)
- Virusolve+ (Wipes)



Before cleaning always switch OFF the Docking Station, disconnect from the AC power supply and remove all pumps. Never allow liquid to enter the tiles or electrical contacts and avoid excess fluid build-up on the surface of the tiles. Do not use aggressive solvents or abrasive cleaning agents as these may damage the exterior surface of the Docking Station.

Disposal

Information on Disposal for Users of Waste Electrical & Electronic Equipment

This  symbol on the product and/or accompanying documents means that used electrical and electronic products should not be mixed with household waste.

If you wish to discard electrical and electronic equipment, please contact your CareFusion affiliate office or distributor for further information.

Disposing of this product correctly will help to save valuable resources and prevent any potential negative effects on human health and the environment which could otherwise arise from inappropriate waste handling.

Information on Disposal in Countries outside the European Union

This symbol is only valid in the European Union. The product should be disposed of taking environmental factors into consideration. All components can be safely disposed of as per local regulations.

5 Trouble Shooting Guide

Docking Station has been dropped or damaged

- If the equipment is damaged, the damaged parts should be identified and replaced before any further troubleshooting is carried out.
- During inspection, careful attention should be paid to the power tile and each docking tile, which may be damaged if the Docking Station is dropped.

Docking Station has been exposed to fluids

- Excessive fluid spills can lead to fluid ingress into the Docking Station. Even if the fluid dries out, deposits can be left which cause the equipment to fail.
- If fluid ingress is suspected the Docking Station should be inspected internally.
- Clean and dry out the equipment.
- Take care to ensure dried out deposits do not remain on the PCBs or other electrical components. Replace permanently damaged tiles.

Docking Station will not power from AC mains

- First check the function of the mains cable with another piece of working equipment.
- Check that the mains is switched on at the wall outlet, if applicable.
- Check that the power cord is seated properly in the mains inlet. Also check the fuse in the AC mains plug.
- If the AC Power switch does not illuminate when the pump is connected to a live AC cable, check the mains fuses at the mains inlet.

No power present at pump

- Check that the Docking Station is switched on and has power.
- Check that the pump is correctly seated on the tile.
- Hold a magnet next to the Infra-Red communications port on the tile. If the Warning LED does not light up the tile must be replaced. If the LED does light up, suspect a problem with the pump and remove from service to be examined by a qualified service engineer.

Warning LED remains lit when pump is removed from tile

- Remove and check that the tile relay body is not distorted by trapped cable loom(s). If relay body is distorting reposition cable loom(s) away from the relay body.
- Replace the complete tile, following the instructions in 'Spare Parts Replacement Procedures'.

6 Corrective Maintenance



Ensure the Docking Station is disconnected from the AC power supply and switched off before attempting to service.

The Docking Station contains static-sensitive components and therefore strict ESD precautions should be observed at all times.

Only use CareFusion recommended spare parts.

Following all spare part replacement and repair activities, testing must be performed in accordance with the 'Routine Maintenance' section.

Power Tile

Replacement Procedure

1. Release the four M4x30 screws on the power tile and the six M4 screws on the adjacent pump tile.
2. Unscrew the two earth cables from the extrusion.
3. Remove the 15V DC supply connector (PL5) from the adjacent pump tile. Also disconnect the Live and Neutral (SC1 and SC2) connectors from the adjacent tile.
4. The complete power tile module can now be removed and replaced with the new power tile. Slide the new power tile into the extrusion. Reconnect the 15V DC supply, live and neutral to PL5, SC1 and SC2 on the adjacent pump tile.
5. Refit the two earth cables to the extrusion.
6. Check that all connectors are correctly fitted and located. Ensure that all earth cables are tightly secured to the extrusion.
7. Lower the pump tile into position in the extrusion and secure both the adjacent pump tile and the new power tile, using the M4 screws.

Docking Tile

Replacement Procedure

1. Remove the six M4x10 screws on the tile.
2. Remove connectors PL5 and PL2. Disconnect Live and Neutral (SC1 and SC) and the IEC Mains Outlet earth cable (PL3).
3. Fit the new tile. Ensure that the tile spacer is flush to the tile above.
4. Reconnect all cables.
5. Fit the six M4x10 screws ensure that they are fully fastened down to 1.7Nm.

Fuse

Replacement Procedure

1. Using a flat-bladed screwdriver, unscrew the fuse holder. Each holder has a separate socket.
2. Replace the blown fuse or fuses with the same type and rating of fuse.
3. Slide the holder back into the fuse socket in the power tile and twist to secure.

Torque Guide

The torque levels established during the manufacturing process are outlined in the 'Assembly Drawings' section. Torque levels selected apply throughout product life for the Docking Station.

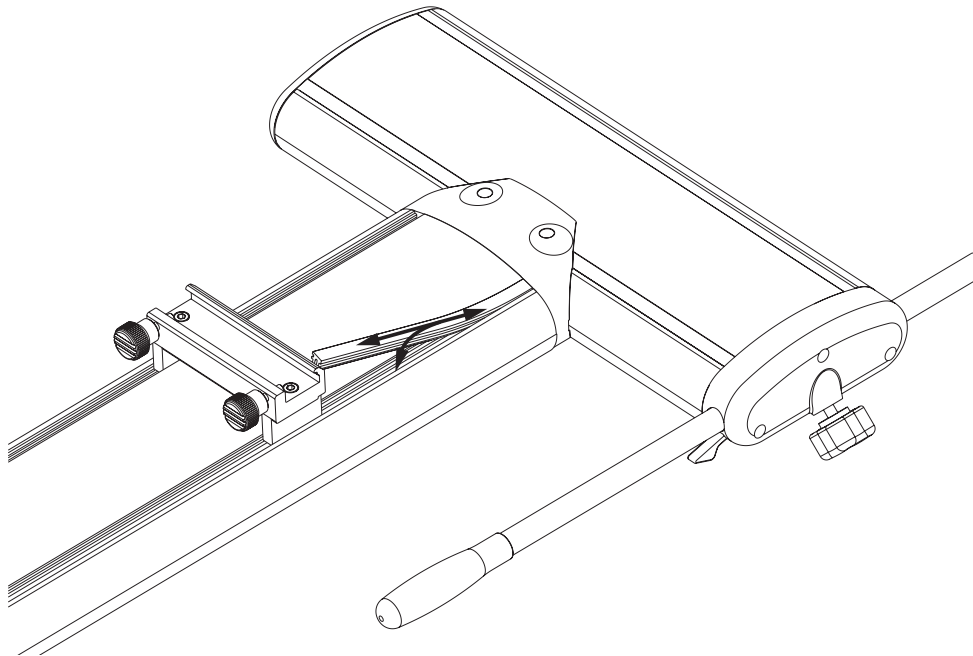
Use the information as a guide to the 'do not exceed' torque levels when servicing the Docking Station. When servicing, it is recommended that torque is applied gradually until the component is secure. In any process do not exceed the stated levels.

If a torque driver is available for servicing this will help control the applied torque; otherwise, be aware that excess force may cause the component to fail.



Where a torque level is not stated in the 'Refitting Notes' sections of this chapter then fixing should be hand-tight.

1. The force required to create a thread for the first time is more than when reassembling a previously made joint.
2. Always use the correct torque level when first making an assembly stage.
3. Take care with the torque applied when re-assembling parts. Less torque is required, so a hand tool may be more appropriate.
4. In many situations a stripped thread will require replacement of the failed component.
5. The head patterns of the fasteners are of the following types:
 - Snake Eye Tool Workstation (fits into a ¼" drive socket, used on tie rods when pulling modules together)
 - Pozi Number 1 (smaller X head)
 - Torx Number T10 (Medium star profile, used on the majority of Torx fasteners)
 - Torx Number T20 (Larger star shape, typically for case securing screws)
 - M3 nuts (Hex head with 5.5mm across flats (AF) drivers)
 - M4 nuts (Hex head with 7mm across flats (AF) drivers)
6. Always select the correct tool and bit pattern for the fastener.



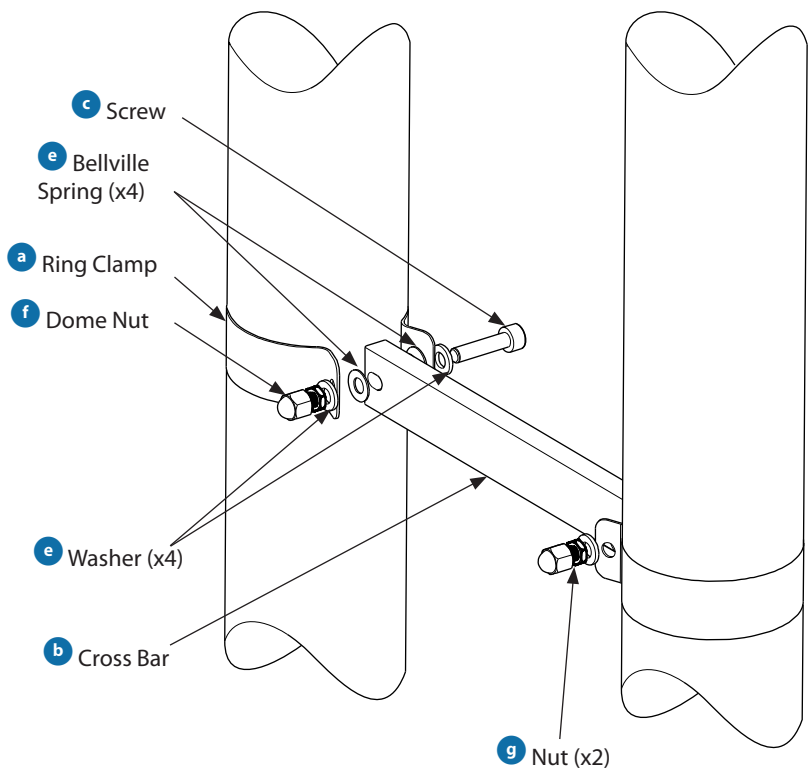
7 Mounting Options

Available Kits

Trolley Mounting Kit

Fitting Procedure

- 1. Remove the plastic coating from the inner and outer surfaces of the Ring Clamp **a**.
- 2. Slide one ring clamp over each trolley pole.
- 3. Align the Cross Bar **b** fixing holes with those in each of the Ring Clamps.
- 4. Insert the Fixing Screw **c** through the assembly positioning washers **d** and **e** as shown.
- 5. Position the support bar and tighten the Thin Nut **g**, Dome Nut **f** and screw to 3Nm.



Item	Description	Part Number
a	Ring Clamp	1000SP01187
b	Cross Bar	
c	Screw Skt Tap M6 X 25 Din 912	
d	Washer Plain M6 Din 125	
e	Bellville Washer, Lee Springs 250-025-500	
f	Nut Dome M6 Din 1587	

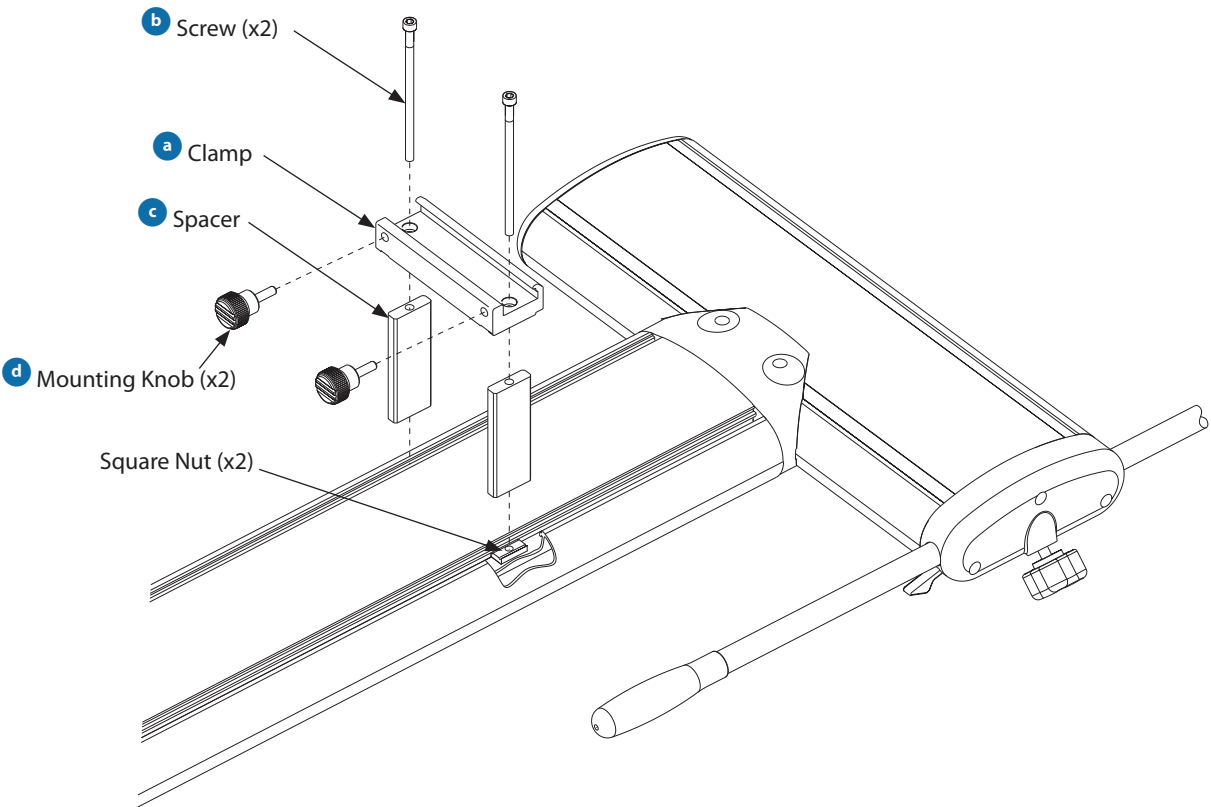


When fixing the Workstation to the trolley, the mounting kits should be positioned and tightened so that the mount clamps align with the 10 x 25mm bars on the trolley.

Bar Mounting Kit

Fitting Procedure

- 1. Remove Sealing Cord from the channel. Using an Allen key, remove the fasteners from the pre-fitted square nuts in the extrusion channel. Using a screwdriver or similar pointed tool, slide the loosened Square Nuts along the channel to the required position.
 - 2. Insert the two Screws **b** through the Clamp **a** and Spacers **c**.
 - 3. Tighten the Screws ensuring that the mounting kit remains level.
 - 4. Insert the Mounting Knobs **d** into the Clamp.
 - 5. Repeat the process for the remaining kits.
 - 6. Cut a length of Sealing Cord to fill the channel between the mounting kit and the end caps.
 - 7. Carefully press the cord into place.
 - 8. Repeat the operation for the remaining sections of the channel.
- NOTE:** CareFusion only recommend mounting kits to be fitted to the vertical extrusion.



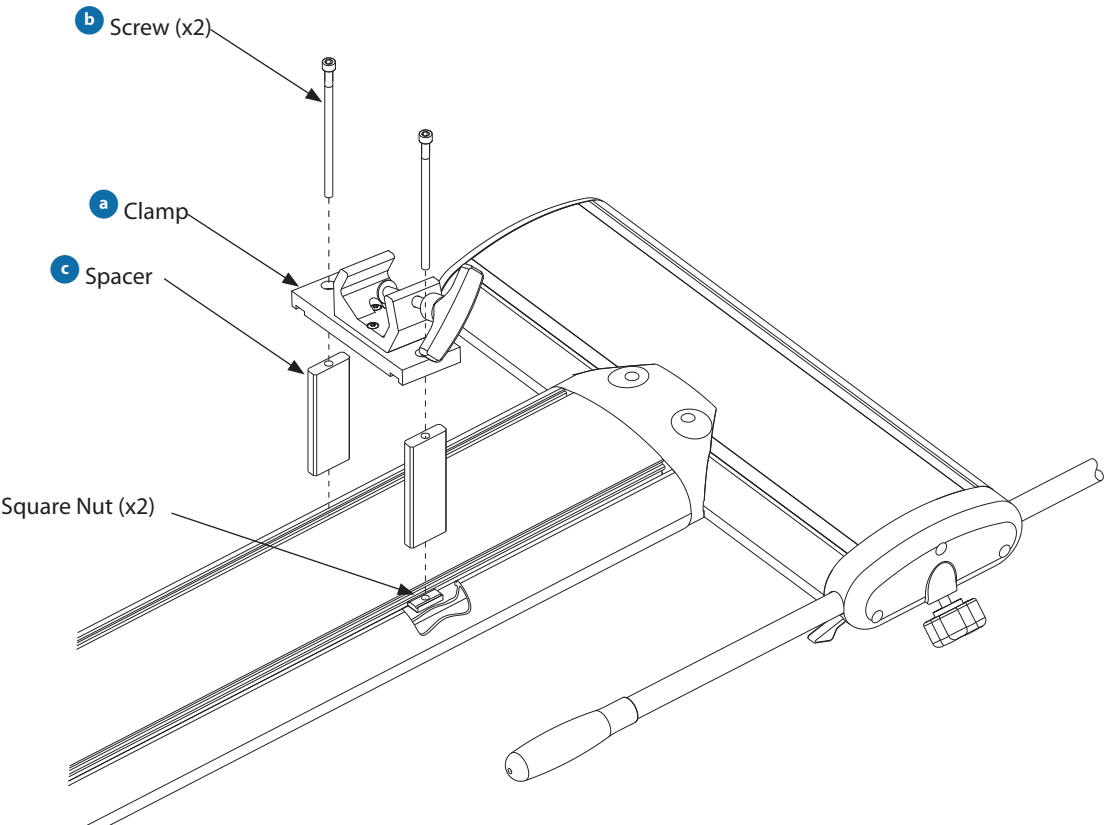
Item	Description	Part Number
a	Rail Mounting Clamp DS/IDS	1000SP00655
b	M6x40 Soc Hd A2 S/S Cap Scrw (DIN912)	
c	Plate Spacer Mounting DS/IDS	
d	Knob Mounting	

 It is important that the mounting brackets are located exactly as detailed in the Mounting Locations section.

Pole Mounting Kit

Fitting Procedure

- 1. Remove Sealing Cord from the channel. Using an Allen key, remove the fasteners from the pre-fitted square nuts in the extrusion channel. Using a screwdriver or similar pointed tool, slide the loosened square nuts along the channel to the required position.
- 2. Insert the two Screws **b** through the Clamp **a** and Spacers **c**.
- 3. Tighten the Screws ensuring that the mounting kit remains level.
- 4. Repeat the process for the remaining kits.
- 5. Cut a length of Sealing Cord to fill the channel between the mounting kit and the end caps.
- 6. Carefully press the cord into place.
- 7. Repeat the operation for the remaining sections of the channel.



Item	Description	Part Number
a	Assembly P/Clamp Docking Station Asena	1000SP00169
b	M6x40 Soc Hd A2 S/S Cap Scrw (DIN912)	
c	Plate Spacer Mounting DS/IDS	



Ensure that all clamps **a with the T-Bar handle are updated to the new design.**



Old design

New design



It is important that the mounting brackets are located exactly as detailed in the Mounting Locations section.

Mounting Locations

It is important that the mounting brackets are located exactly as detailed in the diagrams below. Each mounting bracket must be attached to a load bearing Dräger type mounting rail when the Bar Mounting kit is used or a load bearing pole when the Pole Mounting kit is used.

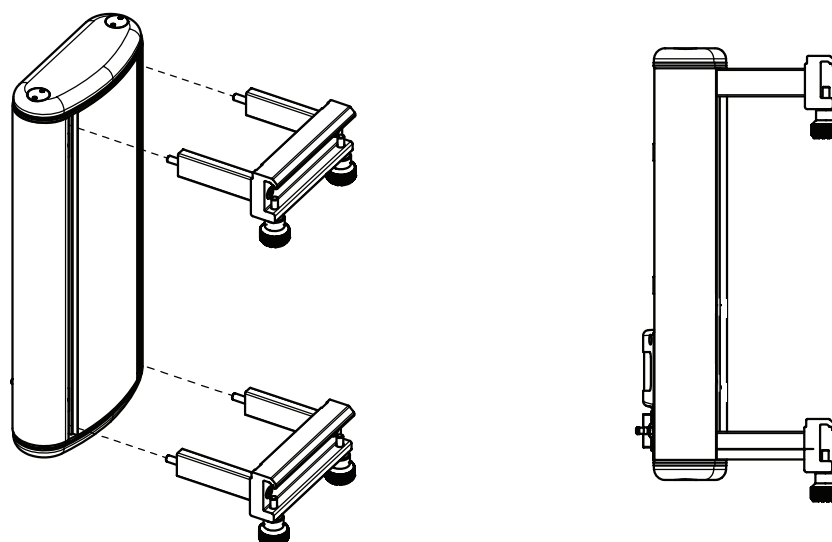


The Workstation should not be fitted to any other mobile pole or drip stand unless the stability and strength of the whole assembly has been evaluated to IEC/EN60601-1.

Note: The mounting brackets detailed in the following diagrams are the Bar Mounting Kit (1000SP00655). The indicated mounting positions also apply to the Pole Mounting Kit (1000SP00169).

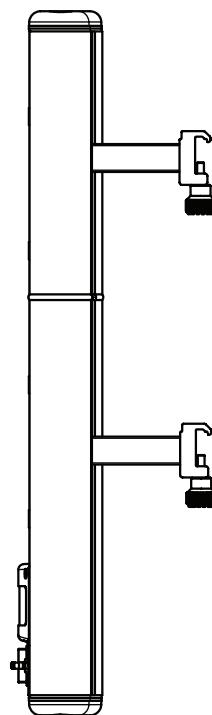
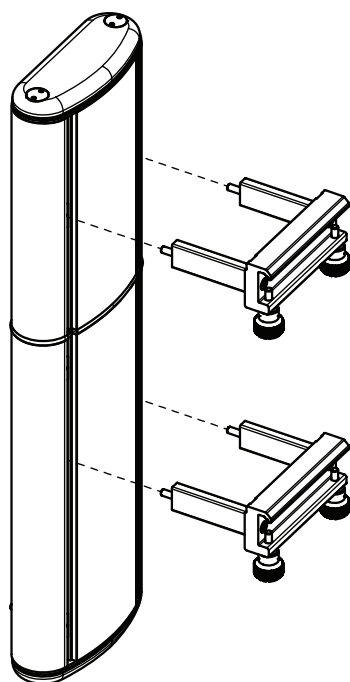
2x0 Configuration

Mounting kits required: 2



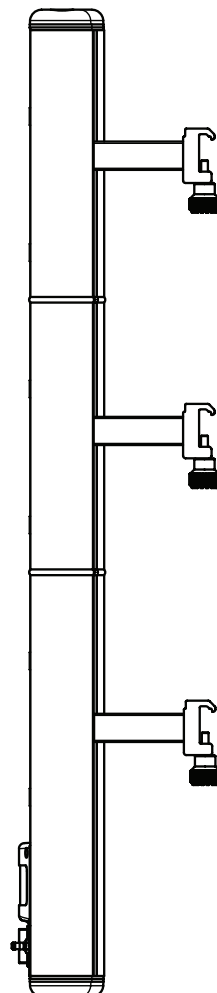
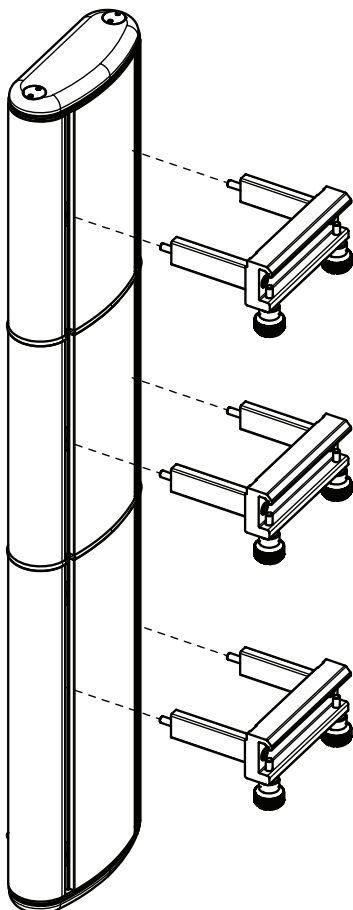
4x0, 4x2, 4x3 and 4x4 Configuration

Mounting kits required: 2



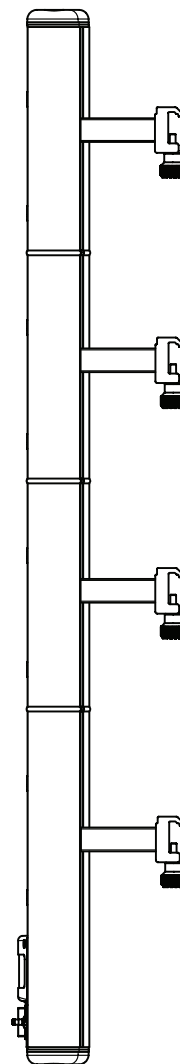
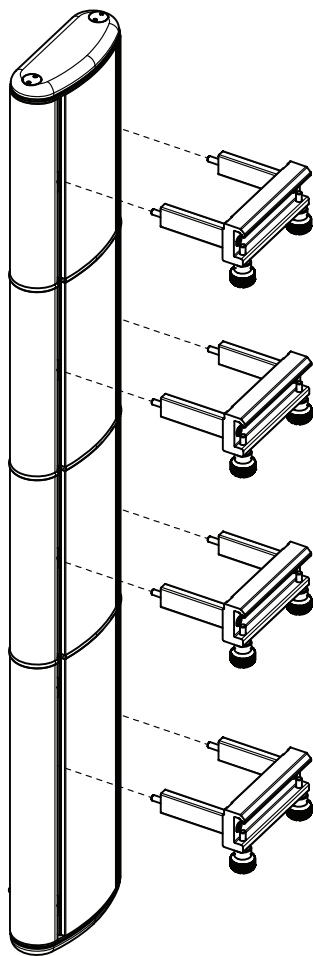
6x0, 6x2, 6x3 and 6x4 Configuration

Mounting kits required: 3



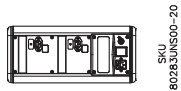
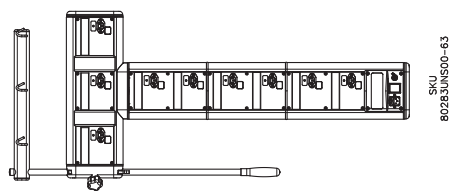
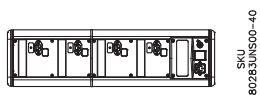
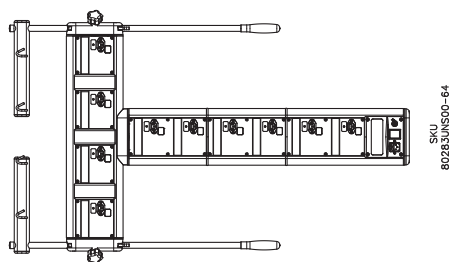
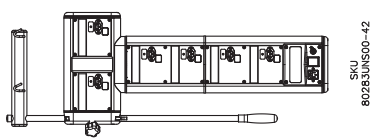
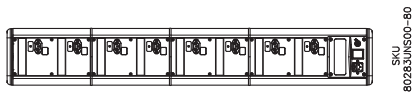
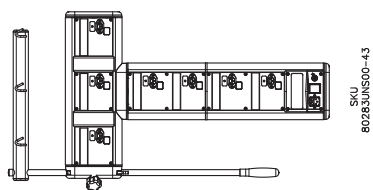
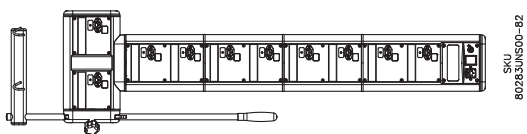
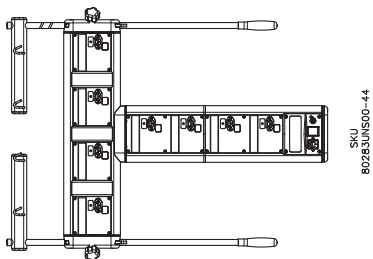
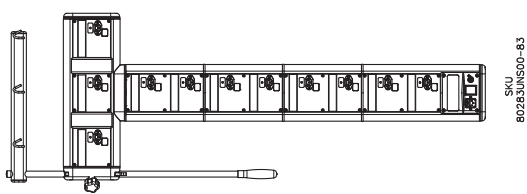
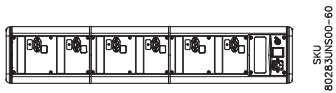
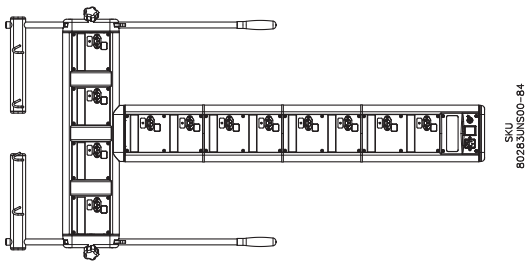
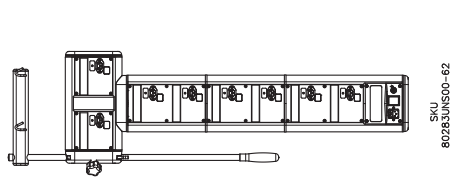
8x0, 8x2, 8x3 and 8x4 Configuration

Mounting kits required: 4

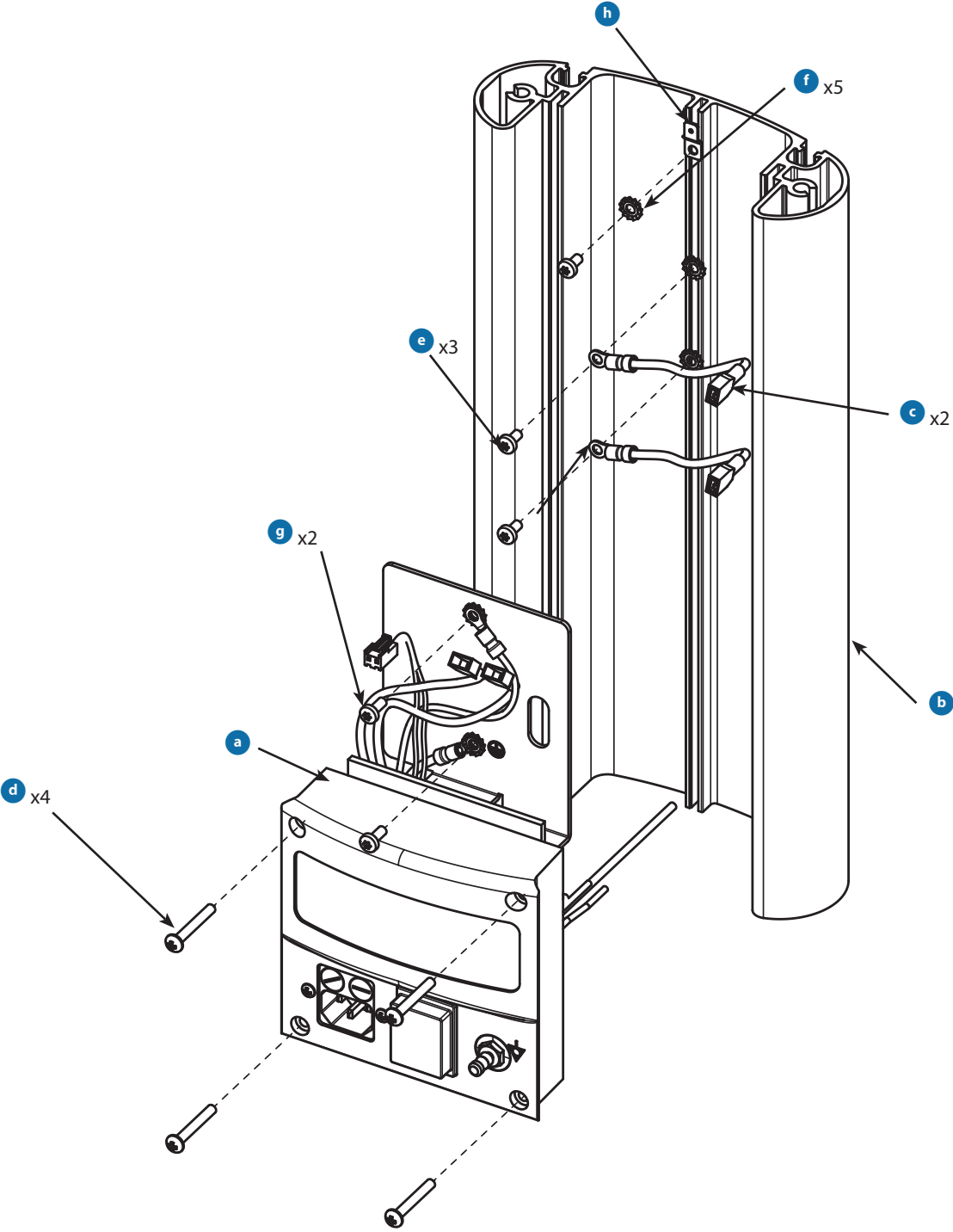


8 Assembly Drawings

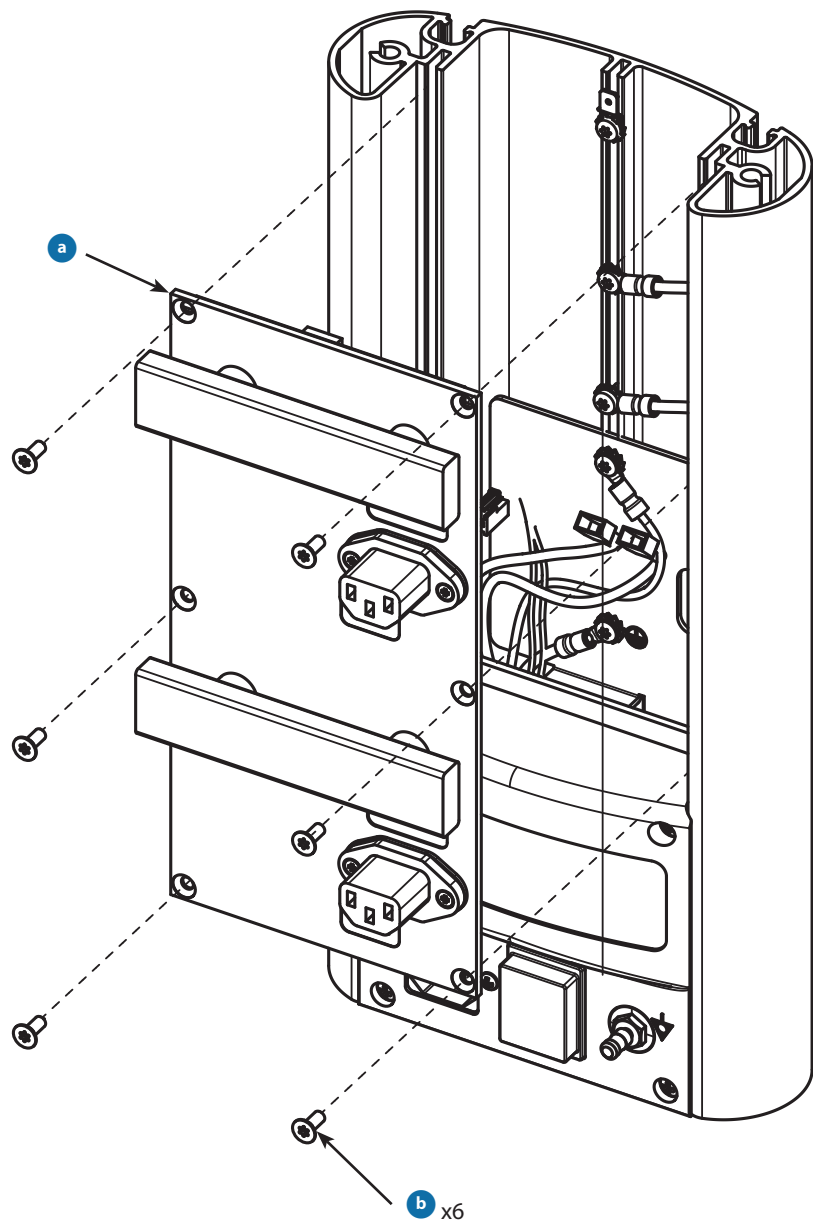
The following Assembly Drawings contain details of all component parts for the Docking Station. To order replacement parts, locate the component part on the drawing and order the associated spare parts kit listed.



DS Base Module - 1000SP01380

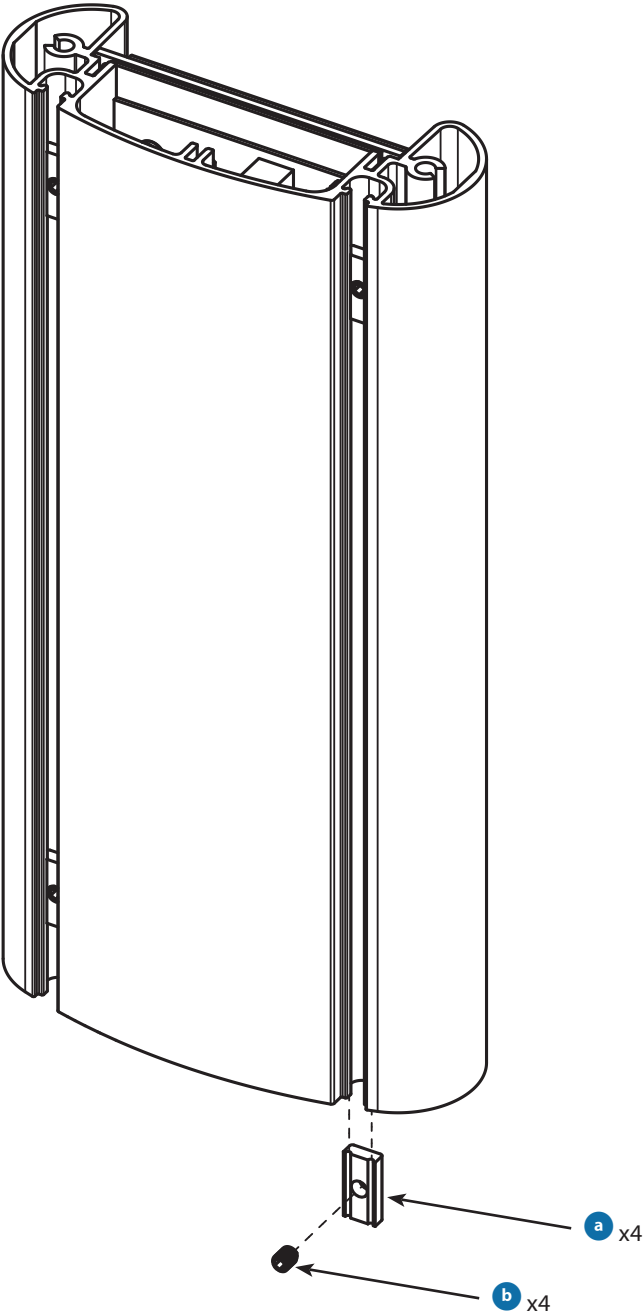


Item	Description	Part Number
a	DS PSU Spare	1000SP00503
b	Extrusion DS 2 High	1000SP01398
c	Assy Cable Earth DS/IDS	1000SP00452
d	M4x30 Pozi Pan A2 Tritap (DIN7500)	0000ME00836
e	AGW Hardawre Kit	1000SP01217
f		
g		
h		



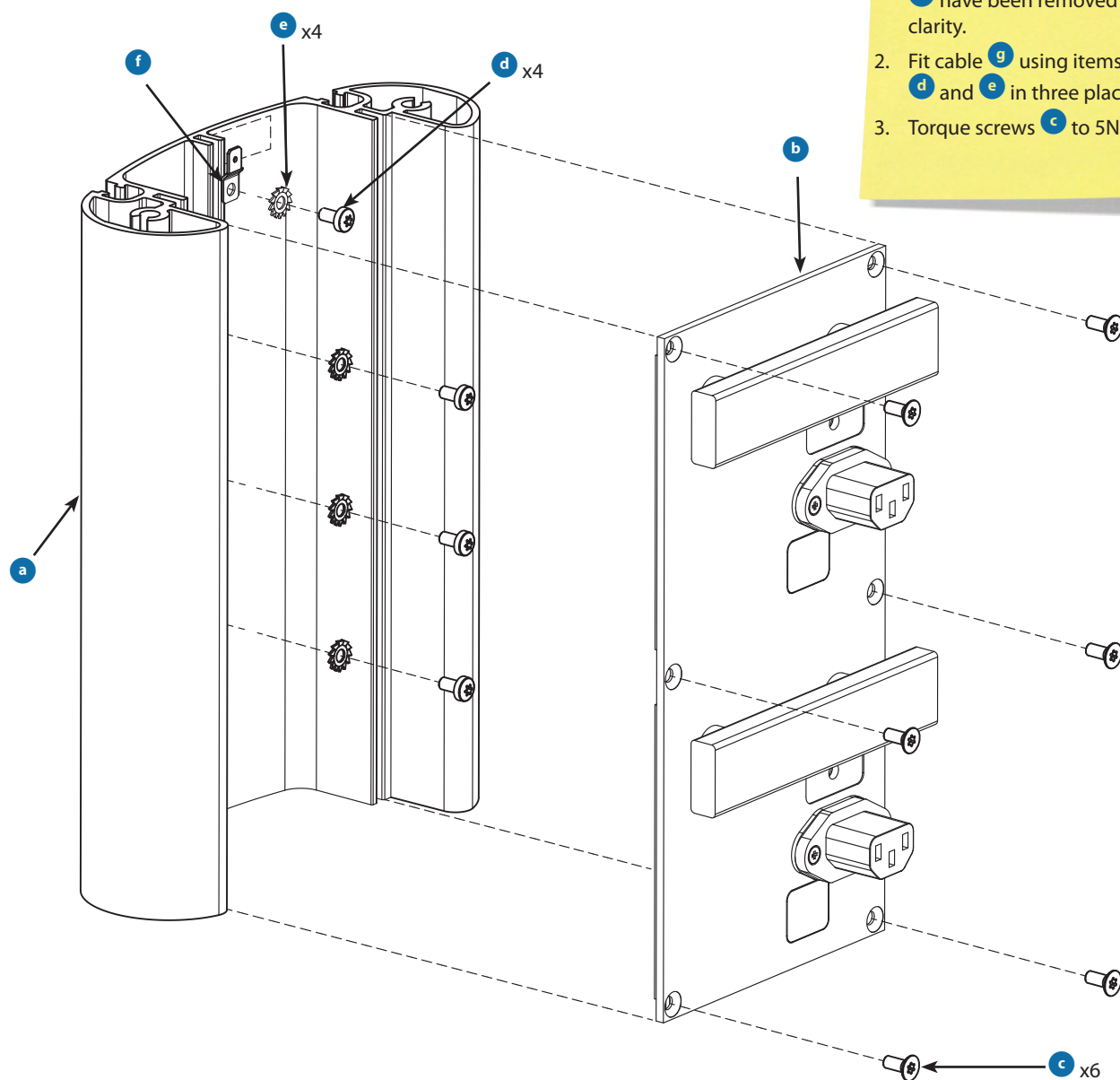
Note: Cables **c** and **d** have been removed for clarity.

Item	Description	Part Number
a	Tile Plate Assy 2 Vertical DS	1000SP01385
b	AGW Hardawre Kit	1000SP01217
c	Cable Assembly DS Tile DC-V Short	1000EL01020
d	Cable Assembly DS Tile AC-V Short	1000EL01018



Item	Description	Part Number
a	AGW Hardawre Kit	1000SP01217
b	M6x8 Hex Soc Set A4 S/S Pin Cup Pnt	0000ME00741

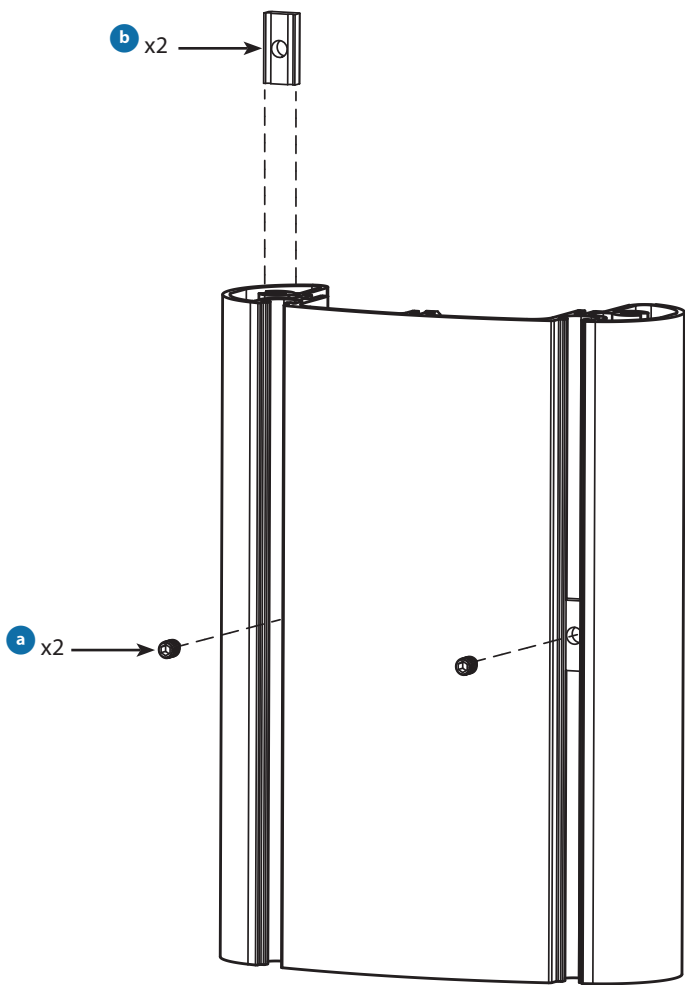
DS 2 Vertical Module Assy - 1000SP01381



Notes:

1. Cables **g**, **h**, **i**, **j** and **k** have been removed for clarity.
2. Fit cable **g** using items **d** and **e** in three places.
3. Torque screws **c** to 5Nm.

Item	Description	Part Number
a	Extrusion Main Vertical 2 Tile A.G.W	1000SP00581
b	Tile Plate Assy 2 Vertical DS	1000SP01385
c	AGW Hardawre Kit	1000SP01217
d		
e		
f		
g	Assy Cable Earth DS/IDS	1000SP00452
h	Cable Assembly DS Tile DC-V Short	1000EL01020
i	Cable Assembly DS Tile AC-V Short	1000EL01018
j	Cable Assembly DS Tile Mains Short	1000EL01017
k	Assy Cable DC Short DS/IDS	1000SP00451

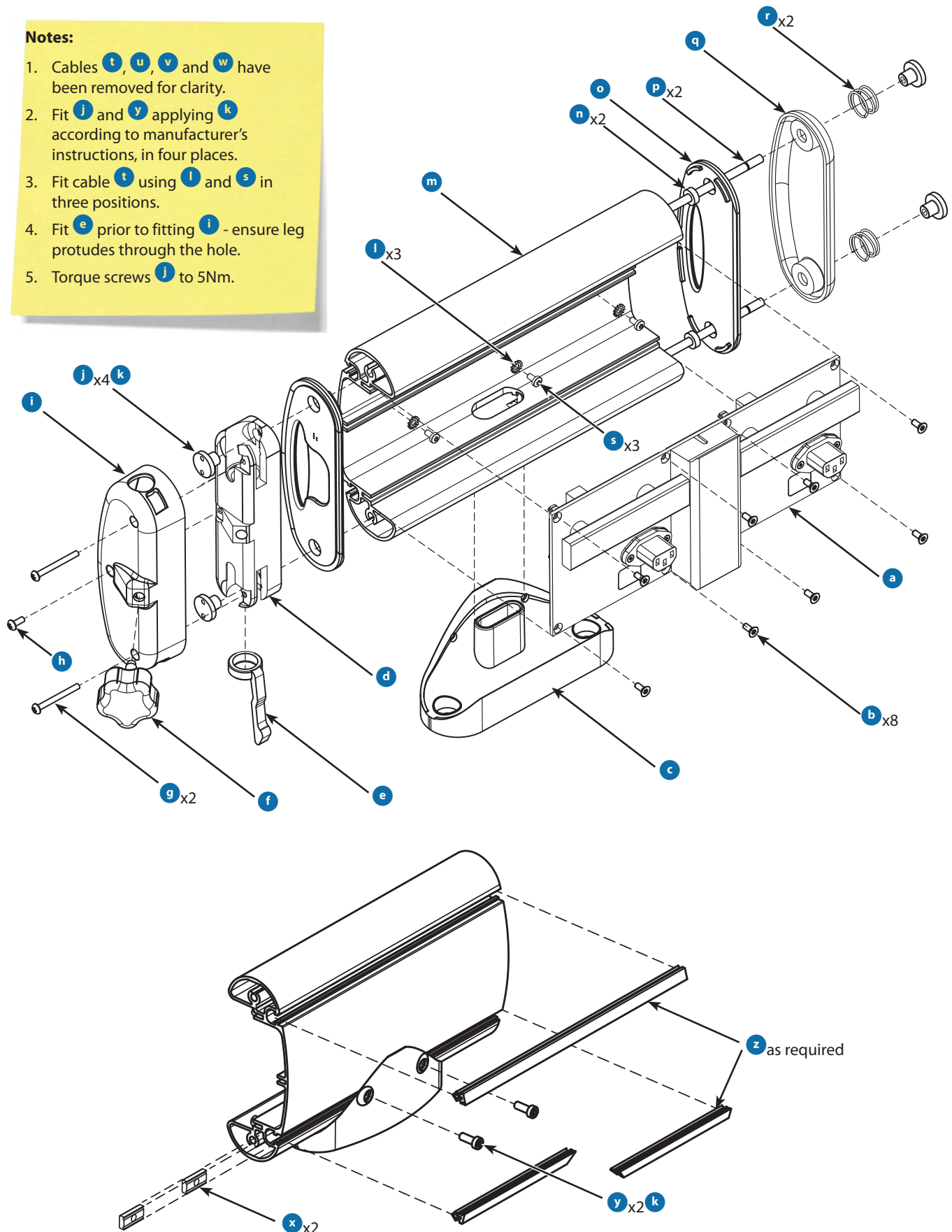


Item	Description	Part Number
a	AGW Hardawre Kit	1000SP01217
b	M6x8 Hex Soc Set A4 S/S Pin Cup Pnt	0000ME00741

DS 2 Wide Module Assy - 1000SP01382

Notes:

1. Cables **t**, **u**, **v** and **w** have been removed for clarity.
2. Fit **j** and **y** applying **k** according to manufacturer's instructions, in four places.
3. Fit cable **t** using **l** and **s** in three positions.
4. Fit **e** prior to fitting **i** - ensure leg protrudes through the hole.
5. Torque screws **j** to 5Nm.

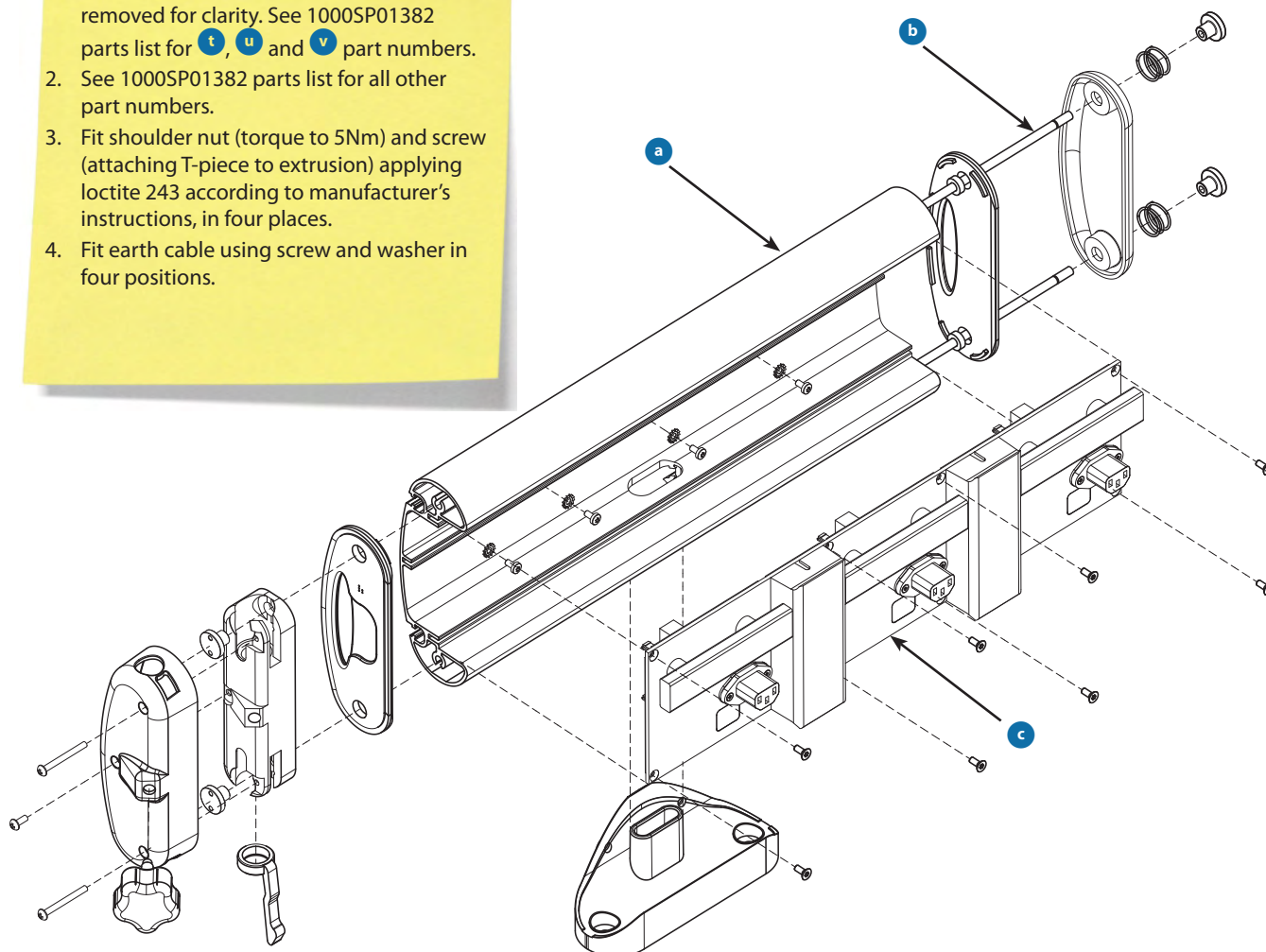


Item	Description	Part Number
a	Tile Plate Assy 2 Wide DS	1000SP01386
b	AGW Hardawre Kit	1000SP01217
l		
s		
x		
c	T-piece Asena Gateway	1000ME00546
d	Casting Bag Hanger Support AGW	1000ME00583
e	Slip Catch DS/IDS	1000ME00419
f	M8x25 Hand Knob SSRR706	1000ME00473
g	M4x25 Rec Pan A2 S/S M/C (Din7985)	0000ME00622
h	M4x10 Rec Pan A2 S/S M/C (Din7985)	0000ME00621
i	End Cap Pole DS/IDS	1000ME00417
j	Shoulder Nut Asena Gateway	1000ME00562
k	Loctite 243	n/a
m	Extrusion Main Horizontal 2 Tile A.G.W	1000SP00582
n	Hard Stop Module Spacer Asena Gateway	1000ME00561
o	End Plate Intermediate Asena Gateway	1000ME00543
p	Tie Rod 2 Horizontal AGW	1000ME00637
q	End Cap Asena Gateway	1000ME00545
r	Compression Spring XI 10509	1000ME01627
t	Assy Cable Earth DS/IDS	1000SP00452
u	Assy Cable DC Short DS/IDS	1000SP00451
v	Cable Assembly DS Tile AC-H Short	1000EL01019
w	Cable Assembly DS Tile Mains Short	1000EL01017
y	M6x16 Low Head A2 Cap Screw(Din7984)	0000ME00620
z	Trimstrip Extrusion Profile Asena DS/IDS	1000ME00406

DS 3 Wide Module Assy - 1000SP01383

Notes:

1. Cables **d**, **e**, **t**, **u** and **v** have been removed for clarity. See 1000SP01382 parts list for **t**, **u** and **v** part numbers.
2. See 1000SP01382 parts list for all other part numbers.
3. Fit shoulder nut (torque to 5Nm) and screw (attaching T-piece to extrusion) applying loctite 243 according to manufacturer's instructions, in four places.
4. Fit earth cable using screw and washer in four positions.

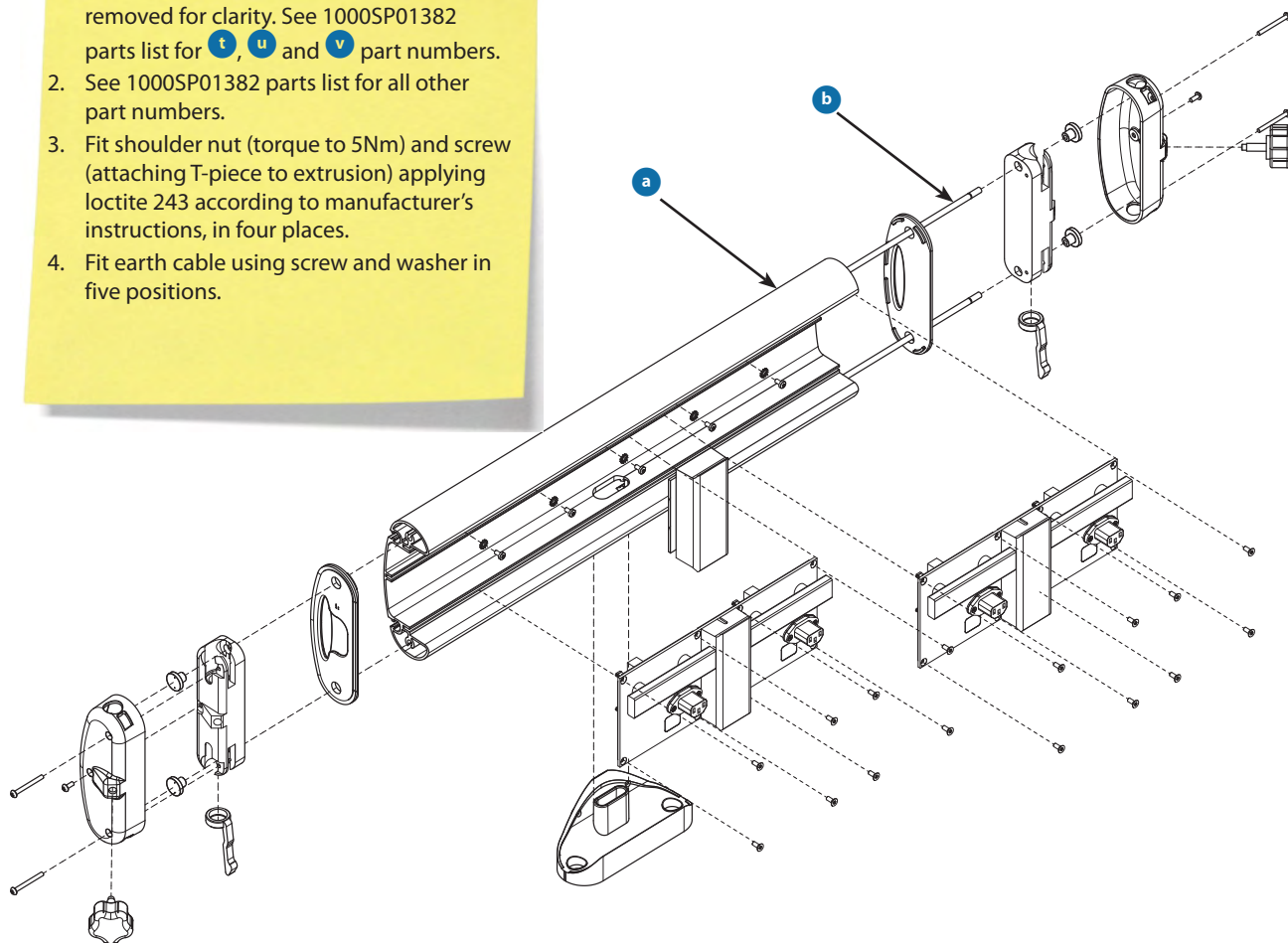


Item	Description	Part Number
a	Extrusion Main Horizontal 3 Tile A.G.W	1000SP00583
b	Tie Rod 3 Horizontal AGW	1000ME00638
c	Tile Plate Assy 3 Wide DS	1000SP01387
d	Cable Assembly DS Tile AC-H Long	1000EL01022
e	Cable Assembly DS Tile DC-H Long	1000EL01021

DS 4 Wide Module Assy - 1000SP01384

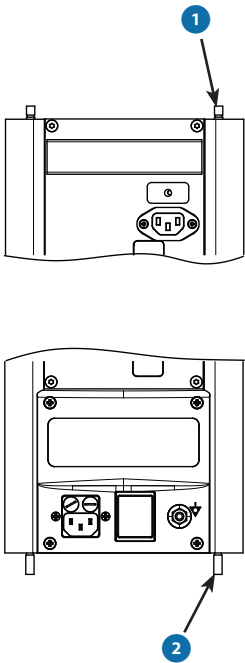
Notes:

1. Cables **c**, **d**, **t**, **u** and **v** have been removed for clarity. See 1000SP01382 parts list for **t**, **u** and **v** part numbers.
2. See 1000SP01382 parts list for all other part numbers.
3. Fit shoulder nut (torque to 5Nm) and screw (attaching T-piece to extrusion) applying loctite 243 according to manufacturer's instructions, in four places.
4. Fit earth cable using screw and washer in five positions.

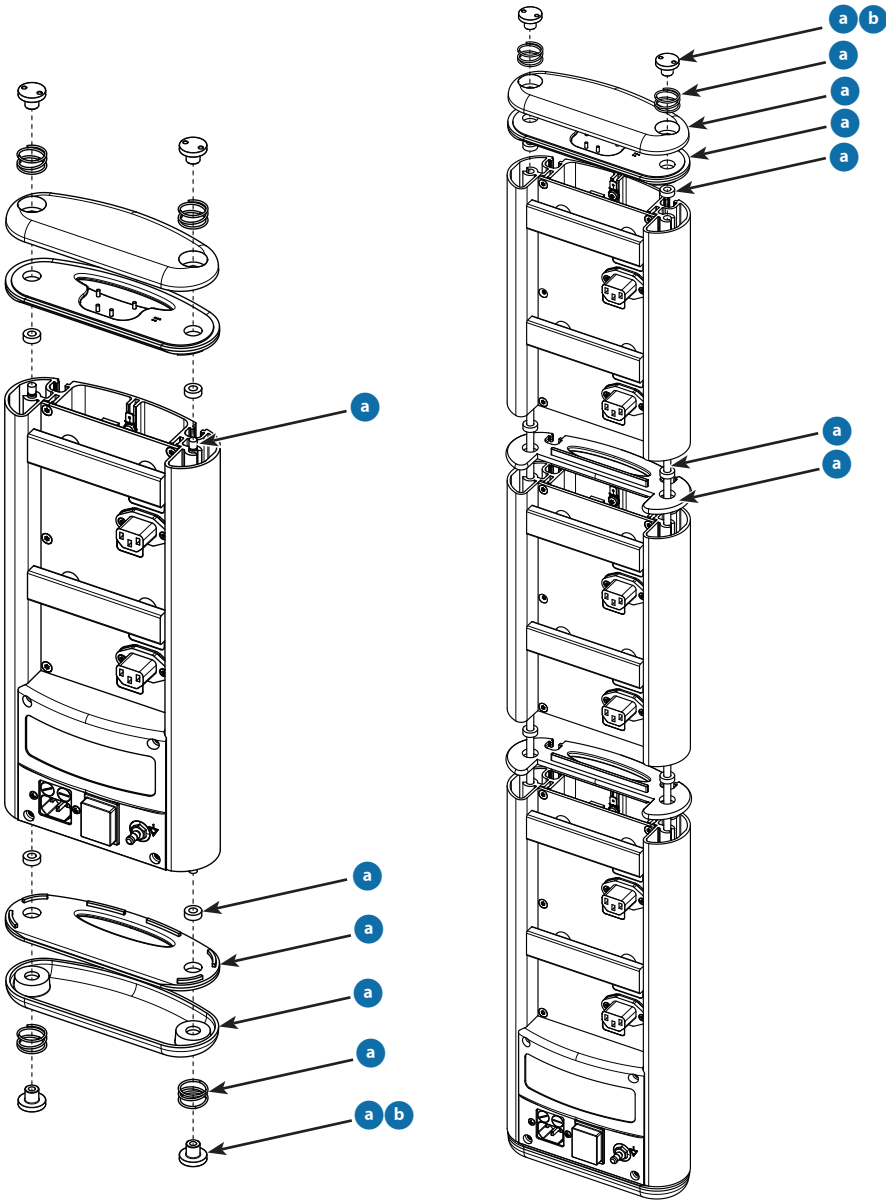


Item	Description	Part Number
a	Extrusion Main Horizontal 4 Tile A.G.W	1000SP00584
b	Tie Rod 4 Horizontal AGW	1000ME00639
c	Cable Assembly DS Tile DC-H Long	1000EL01021
d	Cable Assembly DS Tile AC-H Long	1000EL01022

Vertical Assembly



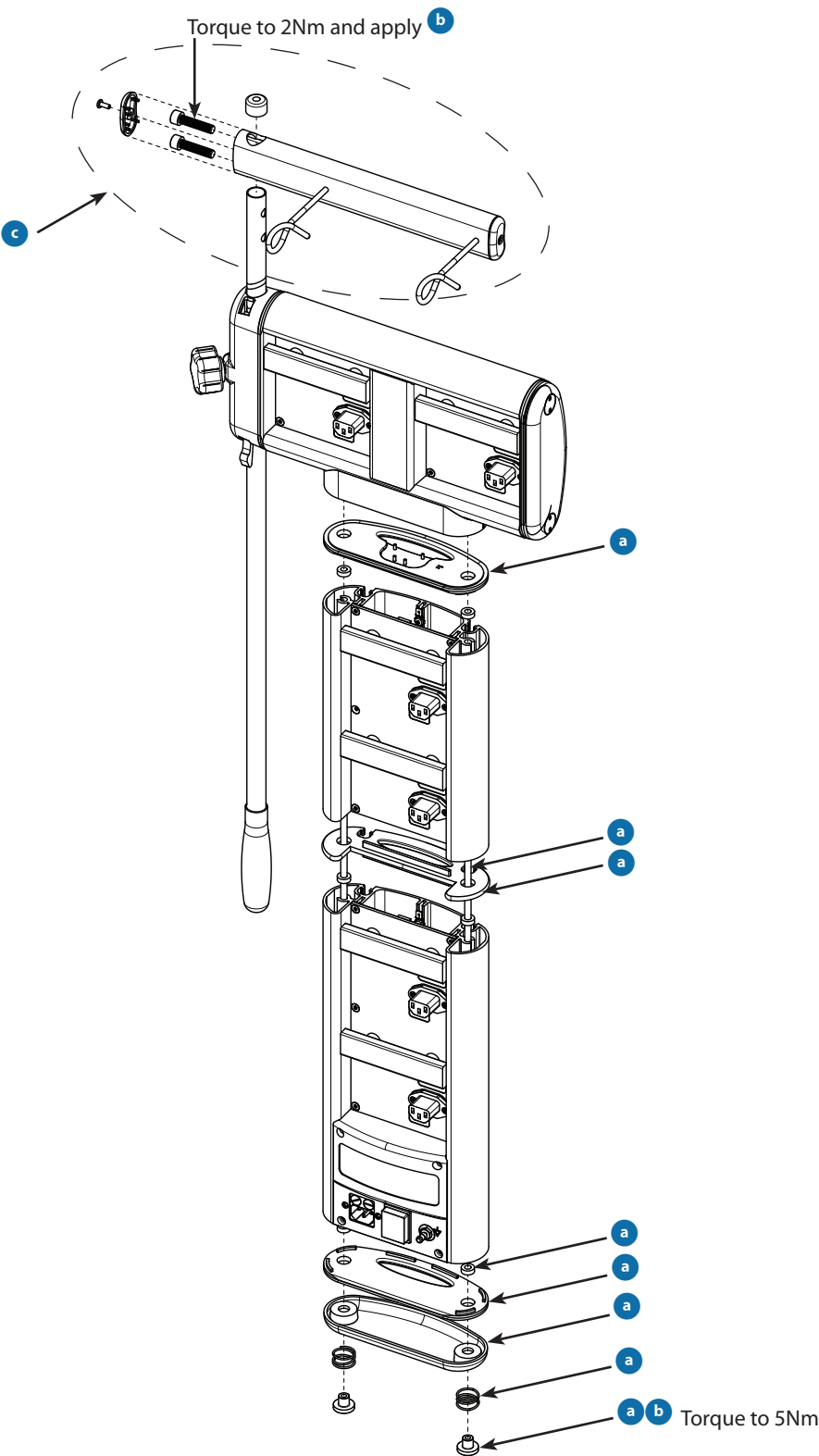
- Notes:**
- 1. Orientation of tie rod is shorter thread (1) at top of module and longer thread (2) at the bottom.
 - 2. Fit shoulder nut (torque to 5Nm) applying loctite 243 according to manufacturer's instructions, in four places.



Item	Description	Model SKU	Part Number
a	DS Tie Rod 2.0 Vertical Kit	80283UNS00-20	1000SP01391
	DS Tie Rod 4.0 Vertical Kit	80283UNS00-40	1000SP01392
	DS Tie Rod 6.0 Vertical Kit	80283UNS00-60	1000SP01393
	DS Tie Rod 8.0 Vertical Kit	80283UNS00-80	1000SP01394
b	Loctite 243		n/a

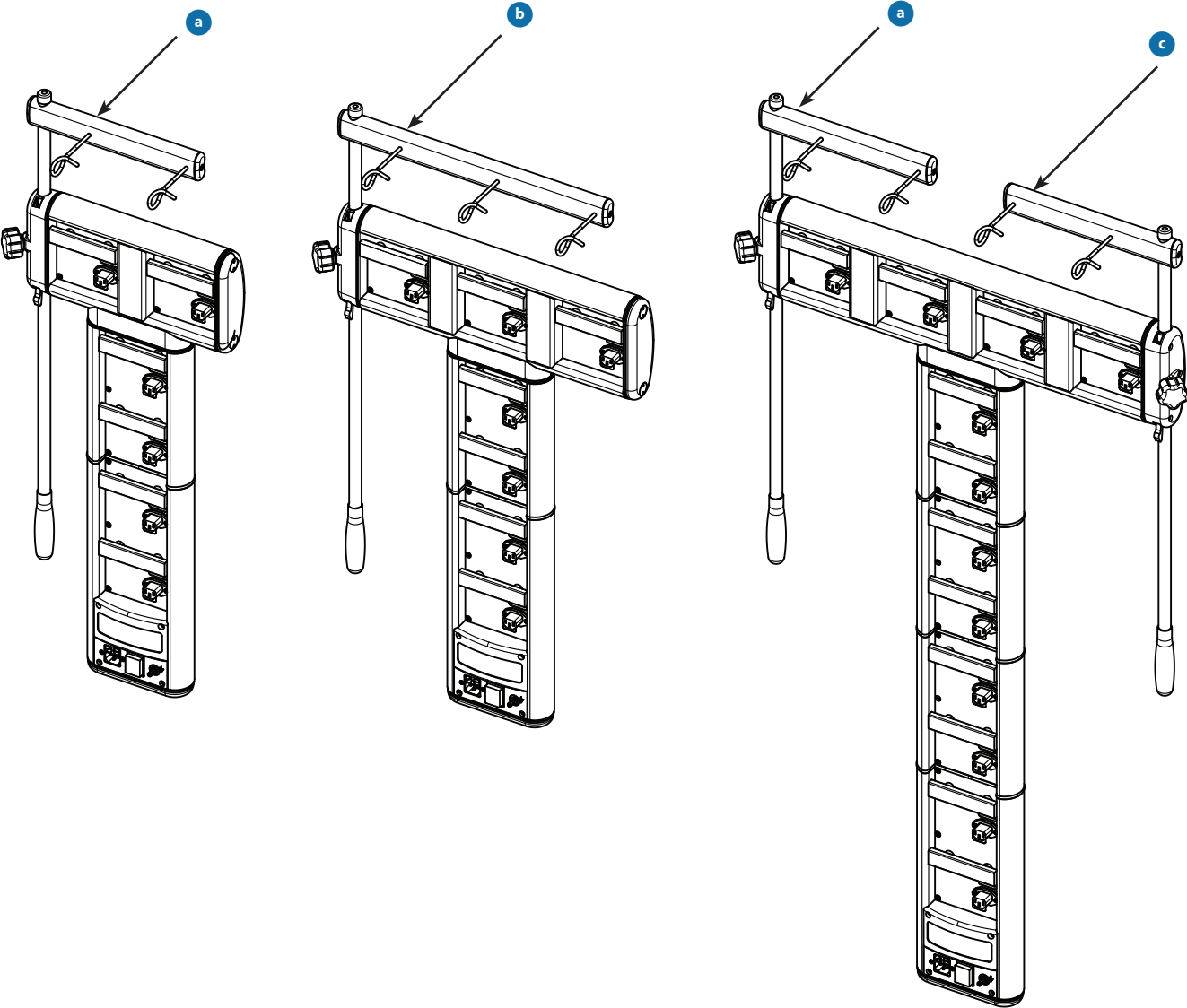
Vertical and Horizontal Assembly

Note: Fit screws applying loctite 243 **b** according to manufacturer's instructions, in two places.



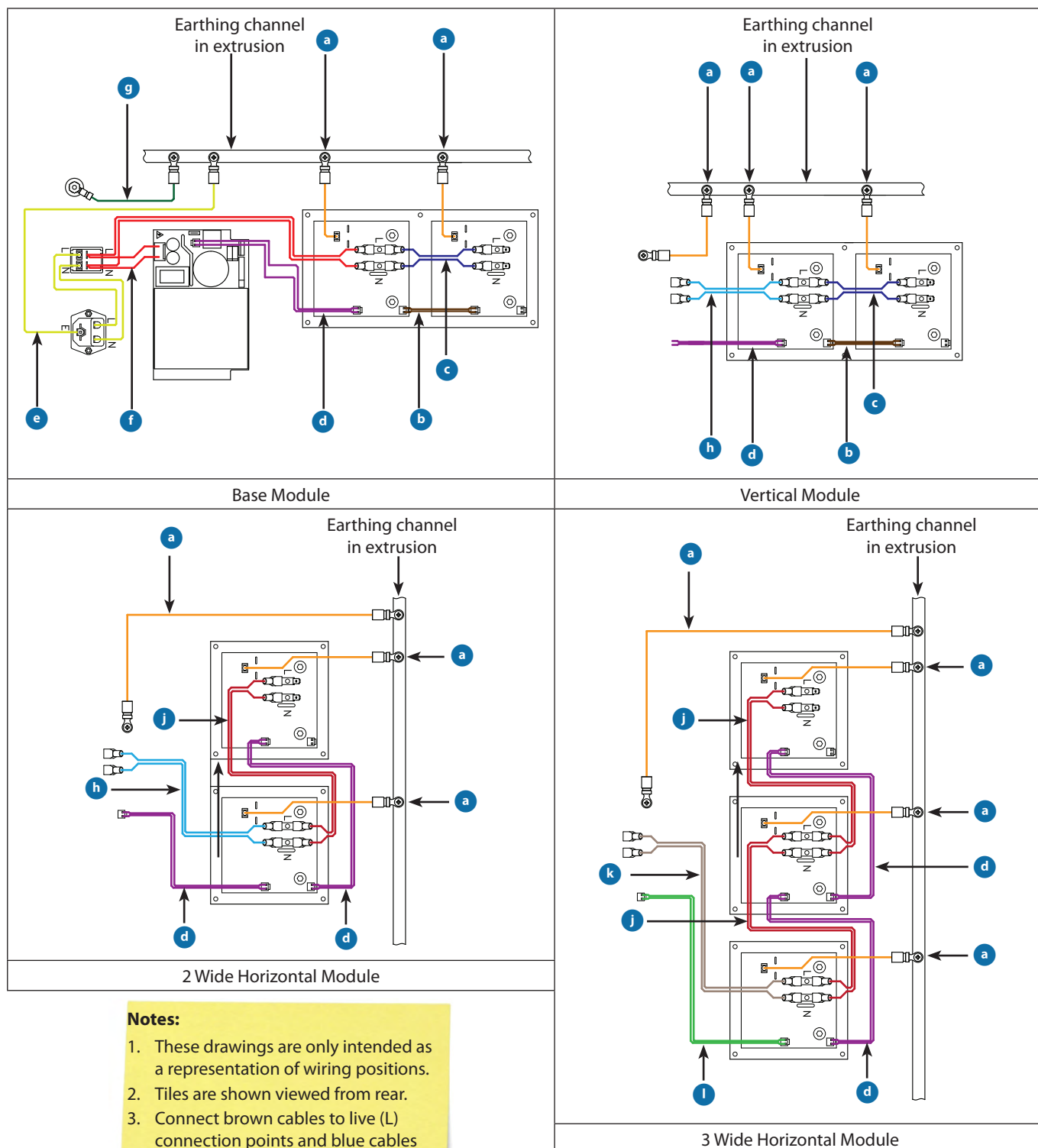
Item	Description	Model SKU	Part Number
a	DS Tie Rod 4 H Kit	80283UNS00-42,43,44	1000SP01395
	DS Tie Rod 6H Kit	80283UNS00-62,63,64	1000SP01396
	DS Tie Rod 8H Kit	80283UNS00-82,83,84	1000SP01397
b	Loctite 243		n/a
c	Bag Hanger Assembly		See next page

Bag Hanger Assembly



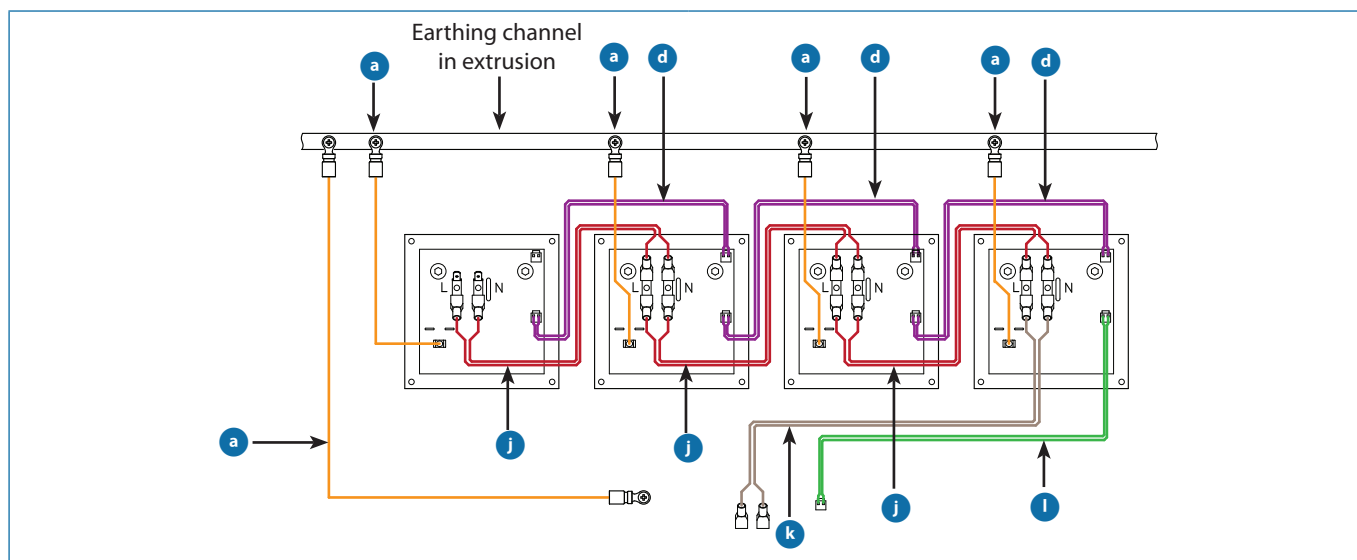
Item	Description	Part Number
a	Assembly Bag Hanger 2 Way L/H	1000SP01482
b	Assembly Bag Hanger 3 Way L/H	1000SP00509
c	Assembly Bag Hanger 2 Way R/H	1000SP00508

Wiring Diagrams

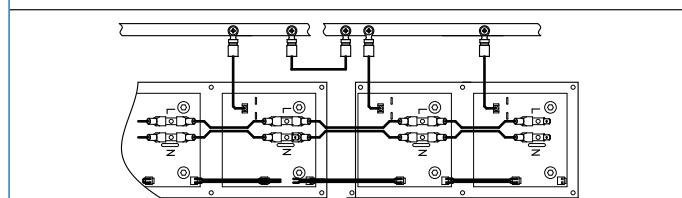


Notes:

1. These drawings are only intended as a representation of wiring positions.
2. Tiles are shown viewed from rear.
3. Connect brown cables to live (L) connection points and blue cables to neutral (N) connection points.
4. Colours used to indicate the different wires are only for clarity of the drawing and are not representative of actual colours.



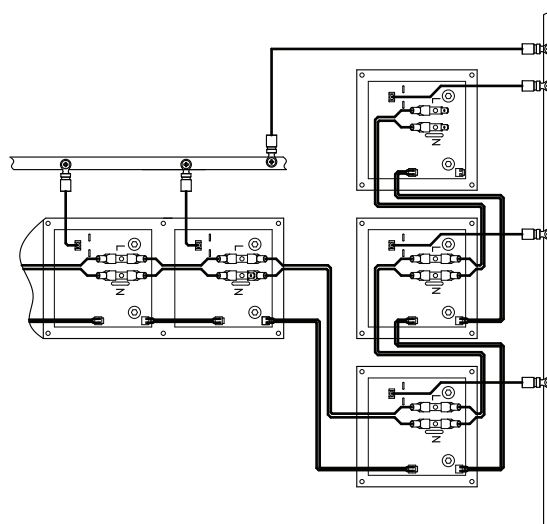
4 Wide Horizontal Module



Connection details of a vertical module to a vertical module

Notes:

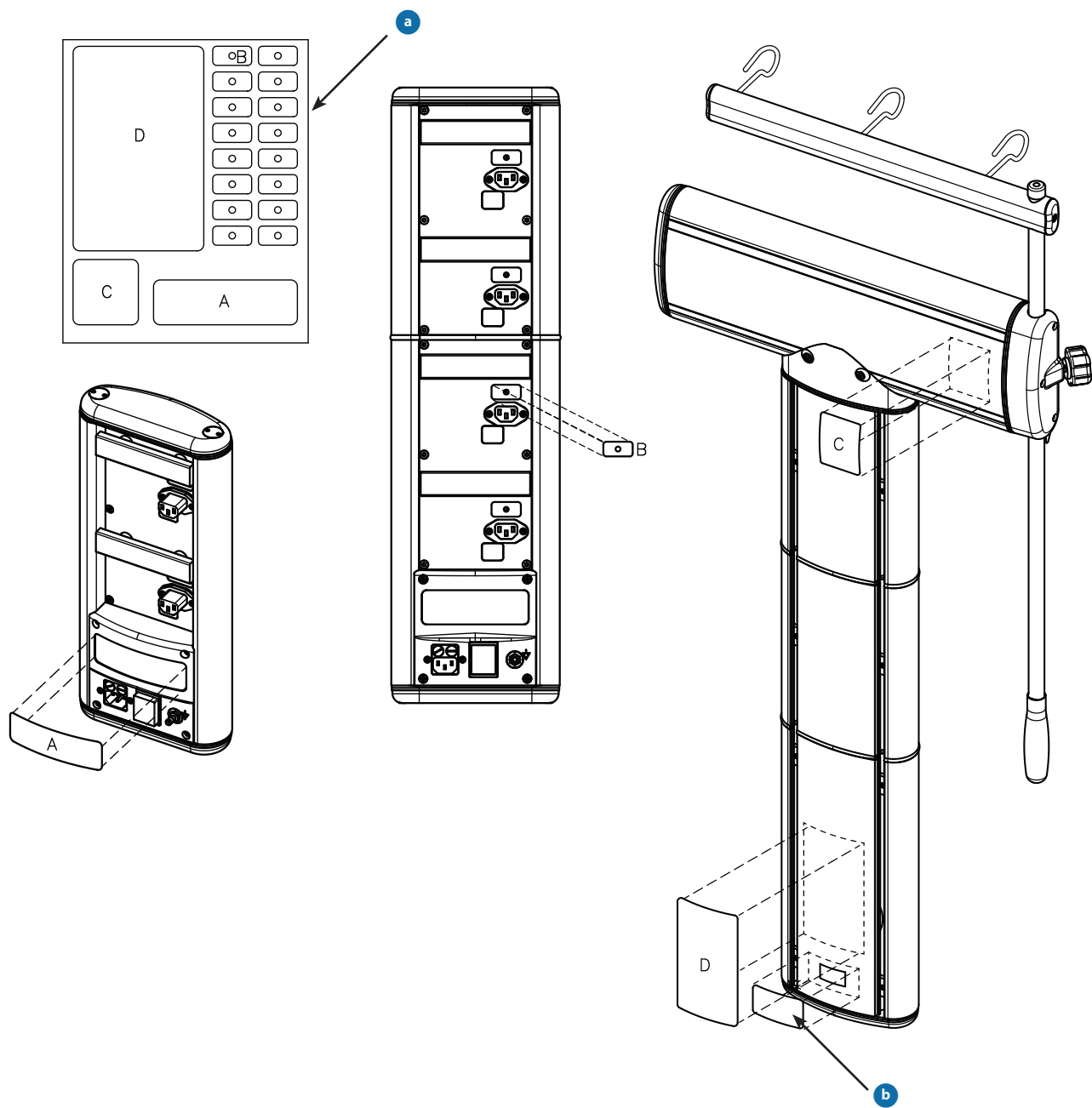
1. These drawings are only intended as a representation of wiring positions.
2. Tiles are shown viewed from rear.
3. Connect brown cables to live (L) connection points and blue cables to neutral (N) connection points.
4. Colours used to indicate the different wires are only for clarity of the drawing and are not representative of actual colours.



Connection details of a vertical module to a horizontal module

Item	Description	Part Number
a	Assy Cable Earth DS/IDS	1000SP00452
b	Cable Assembly DS Tile DC-V Short	1000EL01020
c	Cable Assembly DS Tile AC-V Short	1000EL01018
d	Assy Cable DC Short DS/IDS	1000SP00451
e	Assy Mains Inlet Asena DS/ IDS	1000SP00347
f	Switch Assy DS Power	1000SP00449
g	Cable Assy Earth DS/IDS	1000SP00289
h	Cable Assembly DS Tile Mains Short	1000EL01017
j	Cable Assembly DS Tile AC-H Short	1000EL01019
k	Cable Assembly DS Tile AC-H Long	1000EL01022
l	Cable Assembly DS Tile DC-H Long	1000EL01021

Labels



Item	Description	Part Number
a	Alaris DS Label Set	1000LB01547
b	Label Protection Serial Number	1000LB00660

9 Spare Parts List

Part Number	Description
0000ME00620	M6x16 Low Head A2 Cap Screw(Din7984)
0000ME00621	M4x10 Rec Pan A2 S/S M/C (Din7985)
0000ME00622	M4x25 Rec Pan A2 S/S M/C (Din7985)
0000ME00741	M6x8 Hex Soc Set A4 S/S Pin Cup Pnt
0000ME00836	M4x30 Pozi Pan A2 Tritap (DIN7500)
1000EL01017	Cable Assembly DS Tile Mains Short
1000EL01018	Cable Assembly DS Tile AC-V Short
1000EL01019	Cable Assembly DS Tile AC-H Short
1000EL01020	Cable Assembly DS Tile DC-V Short
1000EL01021	Cable Assembly DS Tile DC-H Long
1000EL01022	Cable Assembly DS Tile AC-H Long
1000LB00660	Label Protection Serial Number
1000LB01547	Alaris DS Label Set
1000ME00406	Trimstrip Extrusion Profile Asena DS/IDS
1000ME00417	End Cap Pole DS/IDS
1000ME00419	Slip Catch DS/IDS
1000ME00473	M8x25 Hand Knob SSRR706
1000ME00543	End Plate Intermediate Asena Gateway
1000ME00545	End Cap Asena Gateway
1000ME00546	T-piece Asena Gateway
1000ME00561	Hard Stop Module Spacer Asena Gateway
1000ME00562	Shoulder Nut Asena Gateway
1000ME00583	Casting Bag Hanger Support AGW
1000ME00637	Tie Rod 2 Horizontal AGW
1000ME00638	Tie Rod 3 Horizontal AGW
1000ME00639	Tie Rod 4 Horizontal AGW
1000ME01627	Compression Spring XI 10509
1000SP00169	Assembly P/Clamp Docking Station Asena
1000SP00289	Cable Assy Earth DS/IDS
1000SP00347	Assy Mains Inlet Asena DS/ IDS
1000SP00503	DS PSU Spare
1000SP01482	Assembly Bag Hanger 2 Way L/H
1000SP00508	Assembly Bag Hanger 2 Way R/H
1000SP00509	Assembly Bag Hanger 3 Way L/H
1000SP00449	Switch Assy DS Power
1000SP00451	Assy Cable DC Short DS/IDS
1000SP00452	Assy Cable Earth DS/IDS
1000SP00581	Extrusion Main Vertical 2 Tile A.G.W
1000SP00582	Extrusion Main Horizontal 2 Tile A.G.W
1000SP00583	Extrusion Main Horizontal 3 Tile A.G.W
1000SP00584	Extrusion Main Horizontal 4 Tile A.G.W
1000SP00655	Gateway Mounting Kit Extended Type 1
1000SP01187	Mounting Kit Assembly DS Trolley
1000SP01217	AGW Hardware Kit

Part Number	Description
1000SP01380	DS Base Module
1000SP01381	DS 2 Vertical Module Assy
1000SP01382	DS 2 Wide Module Assy
1000SP01383	DS 3 Wide Module Assy
1000SP01384	DS 4 Wide Module Assy
1000SP01385	Tile Plate Assy 2 Vertical DS
1000SP01386	Tile Plate Assy 2 Wide DS
1000SP01387	Tile Plate Assy 3 Wide DS
1000SP01391	DS Tie Rod 2.0 Vertical Kit
1000SP01392	DS Tie Rod 4.0 Vertical Kit
1000SP01393	DS Tie Rod 6.0 Vertical Kit
1000SP01394	DS Tie Rod 8.0 Vertical Kit
1000SP01395	DS Tie Rod 4 H Kit
1000SP01396	DS Tie Rod 6H Kit
1000SP01397	DS Tie Rod 8H Kit
1000SP01398	Extrusion DS 2 High

10 Service Contacts

For service, contact your local Affiliate Office or Distributor.

AE	CN	GB	NZ
CareFusion, PO Box 5527, Dubai, United Arab Emirates.	CareFusion, Shanghai Representative Office, Suite A, Floor 24, Shanghai Times Square Office Building, No.500 Zhangyang Road, Shanghai 200122, China.	CareFusion, The Crescent, Jays Close, Basingstoke, Hampshire, RG22 4BS, United Kingdom.	CareFusion, 14B George Bourke Drive, Mt Wellington 1060, PO Box 14-518, Panmure 1741, Auckland, New Zealand
Tel: (971) 4 28 22 842	Tel: (86) 21 58368028	Tel: (44) 0800 917 8776	Tel: 09 270 2420 Freephone: 0508 422734
Fax: (971) 4 28 22 914	Fax: (86) 21 58368017	Fax: (44) 1256 330860	Fax: 09 270 6285
AU	DE	HU	PL
CareFusion, 3/167 Prospect Highway, PO Box 355 Seven Hills, NSW 2147, Australia.	CareFusion, Pascalstr. 2, 52499 Baesweiler, Deutschland.	CareFusion, Döbrentei tér 1, H-1013 Budapest, Magyarország.	CareFusion, ul. Rzymowskiego 53, 02-697 Warszawa, Polska.
Tel: (61) 2 9838 0255	Tel: (49) 2401 604 0	Tel: (36) 14 88 0232 Tel: (36) 14 88 0233	Tel: (48) 225480069
Fax: (61) 2 9674 4444	Fax: (49) 2401 604 121	Fax: (36) 12 01 5987	Fax: (48) 225480001
BE	DK	IT	SE
CareFusion, Leuvensesteenweg 248 D, 1800 Vilvoorde, Belgium.	CareFusion, Firskovvej 25 B, 2800 Lyngby, Danmark.	CareFusion, Via Ticino 4, 50019 Sesto Fiorentino, Firenze, Italia.	CareFusion, Hammarbacken 4B, 191 46 Sollentuna, Sverige.
Tel: (32) 2 267 38 99	Tlf. (45)70 20 30 74	Tél: (39) 055 30 33 93 00	Tel: (46) 8 544 43 200
Fax: (32) 2 267 99 21	Fax: (45)70 20 30 98	Fax: (39) 055 34 00 24	Fax: (46) 8 544 43 225
CA	ES	NL	US
CareFusion, 235 Shields Court, Markham, Ontario L3R 8V2, Canada.	CareFusion, Edificio Veganova, Avenida de La Vega, nº1, Bloque 1 - Planta 1, 28108 Alcobendas, Madrid, España.	CareFusion, De Molen 8-10, 3994 DB Houten, Nederland.	CareFusion, 10020 Pacific Mesa Blvd., San Diego, CA 92121, USA.
Tel: (1) 905-752-3333	Tel: (34) 902 555 660	Tel: +31 (0)30 2289 711	Tel: (1) 800 854 7128
Fax: (1) 905-752-3343	Fax: (34) 902 555 661	Fax: +31 (0)30 2289 713	Fax: (1) 858 458 6179
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CareFusion Switzerland 221 Sàrl Critical Care A-One Business Centre Zone d'activités Vers-la-Pièce n° 10 1180 Rolle / Switzerland	CareFusion, Parc d'affaire le Val Saint Quentin 2, rue René Caudron 78960 Voisins le Bretonneux France	CareFusion, Solbråveien 10 A, 1383 ASKER, Norge.	CareFusion, Unit 2 Oude Molen Business Park, Oude Molen Road, Ndabeni, Cape Town 7405, South Africa.
Ph.: 0848 244 433	Tél: (33) 1 30 05 34 00	Tel: (47) 66 98 76 00	Tel: (27) (0) 860 597 572 Tel: (27) 21 510 7562
Fax: 0848 244 100	Fax: (33) 1 30 05 34 43	Fax: (47) 66 98 76 01	Fax: (27) 21 5107567

11 Document History

Issue	Date	CO No.	Author	Update Description
1	November 2006	6596	Ian Tyler	Initial release supersedes 1000PB00842.
2	November 2007	7885	Ian Tyler	Update test procedures.
3	February 2010	9196	Ian Tyler	TSM Rebrand and Updated with new Modular Docking Station Information.
4	April 2011	11365	Ian Tyler	Update spare parts numbers

12 Appendix Alaris® DS Docking Station Original

This appendix has the test procedures and spare parts replacement procedures for the Original version of the Alaris® DS Docking Station (SKU beginning with 8008).

Test Procedures

Electrical Safety Checks

The following procedure is designed to test the electrical function and safety of the Docking Station. It should be performed on all units after any maintenance, and at least once per year.



WARNING: The following procedures use Mains Voltage and high test currents. Appropriate precautions against electric shock should be taken at all times.

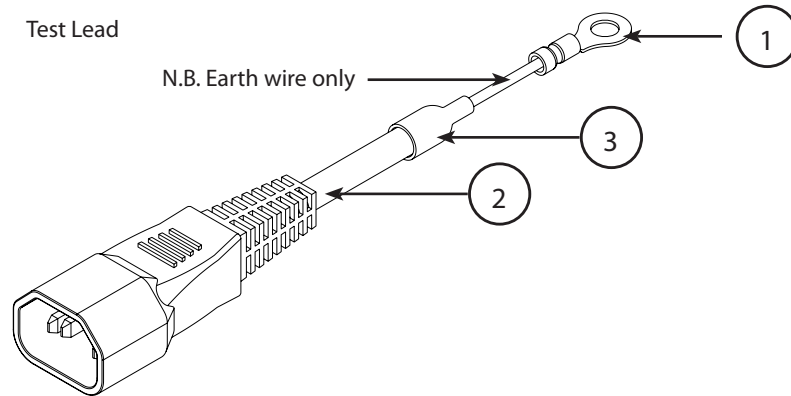
1. Connect the Docking Station to a mains supply. Move the power switch at the base of the Docking Station to the 'ON' position and check that it lights up.
2. Connect a medical grade electrical safety tester, (e.g. Metron QA-90) to a mains supply. Calibrate the Enclosure Lead, (see safety tester's operating instructions) and then connect it to the PE point of the Docking Station. Plug the mains test lead from the safety tester into the mains inlet of the Docking Station.
3. Set up and perform a standard automatic electrical safety test to EN60601-1 Class I, using an Earth Continuity test current of 25A. The tester may require an applied part 'Type' to be entered. If this is the case, 'Type B' should be selected, but no applied parts should be specified. A hard copy of the test results should be printed. The required test result limits are as follows:

Protective Earth Resistance (All test Points)	< 100mΩ
Current Consumption	< 300mA
Insulation Resistance	> 200MΩ
Earth Leakage current:	
• Open Supply - (OS)	< 1000μA
• Normal Condition - (NC)	< 500μA
• Open Supply Reverse Mains - (OSRM)	< 1000μA
• Normal Condition Reverse Mains - (NCRM)	< 500μA
Enclosure Leakage current:	
• Open Supply - (OS)	< 500μA
• Normal Condition - (NC)	< 100μA
• Open Earth - (OE)	< 500μA
• Open Supply Reverse Mains - (OSRM)	< 500μA
• Normal Condition Reverse Mains - (NCRM)	< 100μA
• Open Earth Reverse Mains - (OERM)	< 500μA

4. If the medical grade electrical safety tester does not include a suitable test probe to permit testing of the outlet earth pin on each tile, a test lead may be constructed using the following equipment:

- | | | | |
|----|--------------------------------|-------------------------|----------|
| a) | 6mm Ring Tag | e.g. 150-272 (Farnell) | 1 off |
| b) | IEC Mains Lead (male, in-line) | e.g. 257-813 (Farnell) | 1 off |
| c) | 3:1 Heatshrink Adhesive lined | e.g. 304-7234 (Farnell) | 30mm off |

Note: Ensure that the mains lead is cut as short as possible to minimise resistance.



5. Disconnect the Enclosure Lead from the Docking Station and apply it to the ring tag on the test lead. Connect the test lead to the mains outlet of each docking tile in turn and conduct an Earth Continuity test at 25A using the electrical safety tester. In all cases, the resistance to earth from each tile outlet should not exceed 0.2Ω. If possible, the results of these tests should be included on the hard copy output from the safety tester.
6. Disconnect the Enclosure Lead from the test lead. Attach a high current probe to the enclosure lead. Using the probe and electrical safety tester, conduct Earth Continuity tests on one screw on every IEC Mains Outlet and one screw on every tile plate. In all cases, the resistance to earth from each tile outlet should not exceed 0.2Ω. If possible, the results of these tests should be included on the hard copy output from the safety tester.

Spare Parts Replacement Procedures



Ensure the Docking Station is disconnected from the AC power supply and switched off before attempting to service.

The Docking Station contains static-sensitive components and therefore strict ESD precautions should be observed at all times.

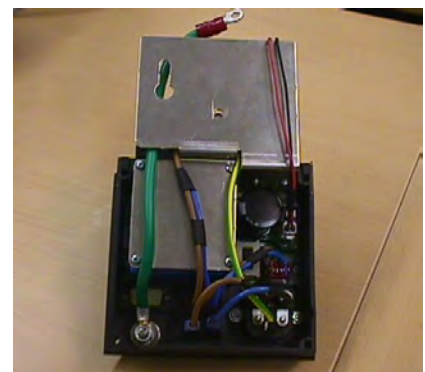
Only use CareFusion recommended spare parts.

Following all spare part replacement and repair activities, testing must be performed in accordance with the 'Routine Maintenance' section.

Power Tile

Replacement Procedure

1. Release the four M4x30 screws on the power tile and the four M4 screws on the adjacent pump tile.
2. Unscrew the two earth cables from the extrusion.
3. Remove the 15V DC supply connector (PL5) from the adjacent pump tile. Also disconnect the Live and Neutral (SC1 and SC2) connectors from the adjacent tile.
4. The complete power tile module can now be removed and replaced with the new power tile. Slide the new power tile into the extrusion. Reconnect the 15V DC supply, live and neutral to PL5, SC1 and SC2 on the adjacent pump tile.
5. Refit the two earth cables to the extrusion.
6. Check that all connectors are correctly fitted and located. Ensure that all earth cables are tightly secured to the extrusion.
7. Lower the pump tile into position in the extrusion and secure both the adjacent pump tile and the new power tile, using the M4 screws with loctite 243 on the screw threads and fastened to 40cNm.



Docking Tile

Replacement Procedure

1. Remove the four M4x10 screws on the tile. 2. Remove connectors PL5 and PL2. Disconnect Live and Neutral (SC1 and SC) and the IEC Mains Outlet earth cable (PL3). 3. Fit the new tile. Ensure that the tile spacer is flush to the tile above. 4. Reconnect all cables.	
5. Before fitting the four M4x10 screws ensure that screw threads have loctite 243 on, then fully fasten down to 100cNm,	

Horizontal Extrusion

Replacement Procedure

For more information refer to the mechanical assembly drawings in this section.

1. Where a horizontal extrusion is already fitted, remove the screws at the rear and base of the T-piece.
2. Remove pole hanger assembly, end cap mouldings, castings, slip catch and end cap intermediate.
3. Remove the tile at the far right of the extrusion. Disconnect cables PL5 and PL2. The extrusion can now be removed and replaced with a new extrusion.
4. Replace the horizontal extrusion to the vertical by aligning the screw threads on the bottom face of the horizontal extrusion with the plastic T piece moulding, also the rear of the T piece. Fasten the screws to 70cNm. Replace end cap intermediate, castings and slip catch.
5. Loosen the tile on the far right-hand side of the new extrusion. Reconnect cables PL5 and PL2 to the tile in the far right-hand position. Refit the tile to the extrusion.

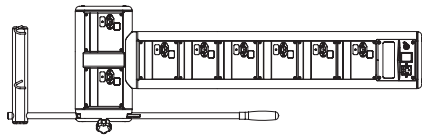
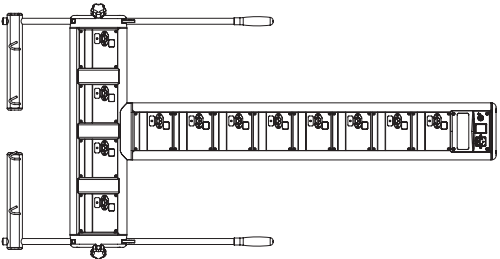
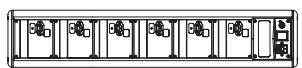
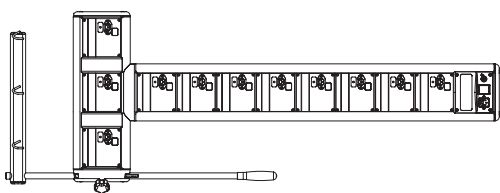
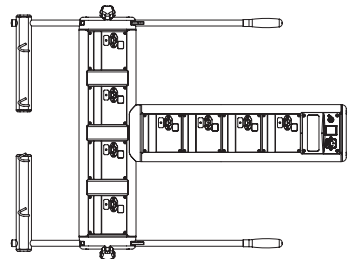
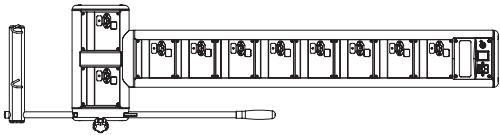
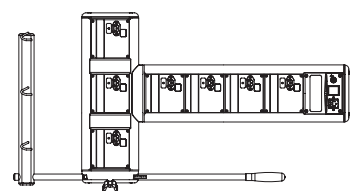
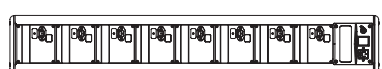
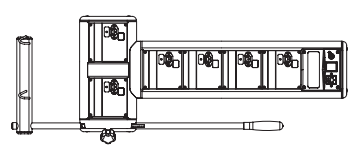
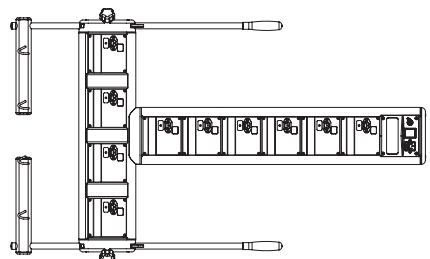
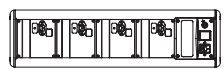
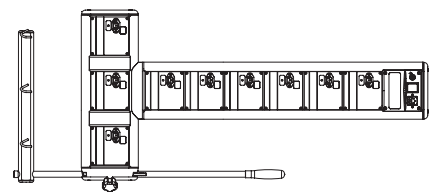
Fuse

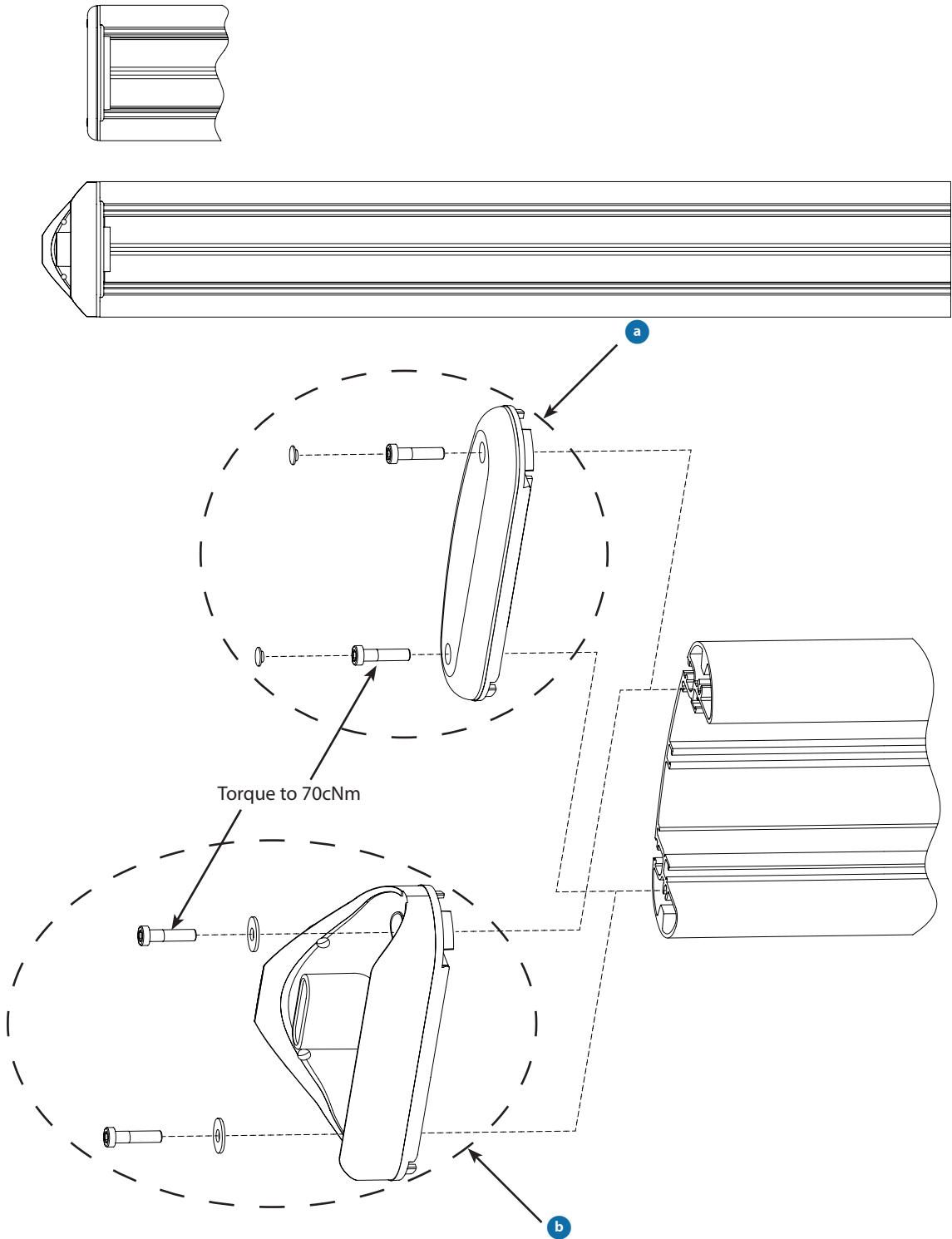
Replacement Procedure

1. Using a flat-bladed screwdriver, unscrew the fuse holder. Each holder has a separate socket.
2. Replace the blown fuse or fuses with the same type and rating of fuse.
3. Slide the holder back into the fuse socket in the power tile and twist to secure.

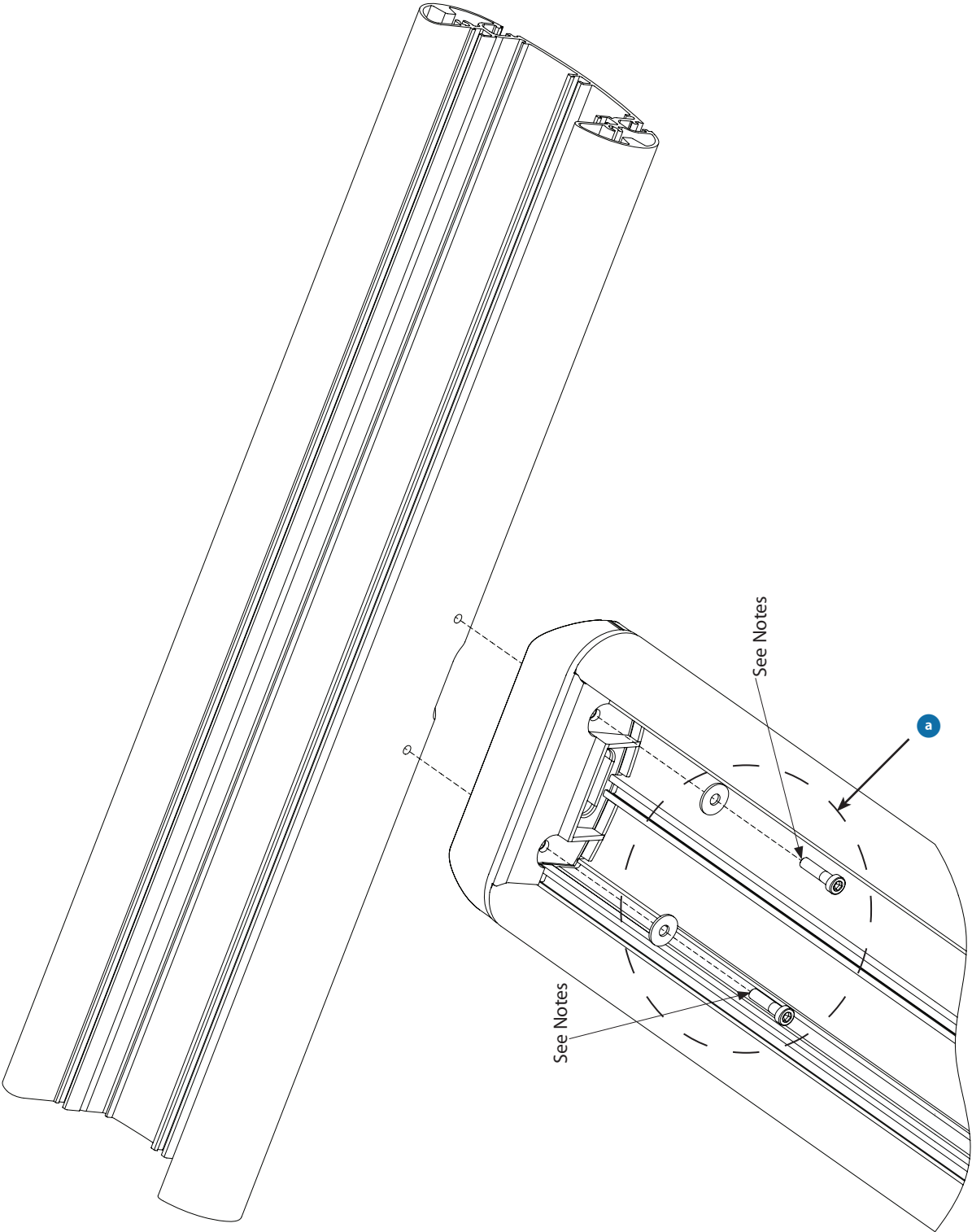
Assembly Drawings

The following Assembly Drawings contain details of all component parts for the Docking Station. To order replacement parts, locate the component part on the drawing and order the associated spare parts kit listed.

	80083UN00-62 REF SHEETS: ALL		80083UN00-84 REF SHEETS: ALL
	80083UN00-60 REF SHEETS: 1, 2, 6, 7, 11, 12, 14 & 15		80083UN00-83 REF SHEETS: ALL
	80083UN00-44 REF SHEETS: ALL		80083UN00-82 REF SHEETS: ALL
	80083UN00-43 REF SHEETS: ALL		80083UN00-80 REF SHEETS: 1, 2, 6, 7, 11, 12, 14 & 15
	80083UN00-42 REF SHEETS: ALL		80083UN00-64 REF SHEETS: ALL
	80083UN00-40 REF SHEETS: 1, 2, 6, 7, 11, 12, 14 & 15		80083UN00-63 REF SHEETS: ALL



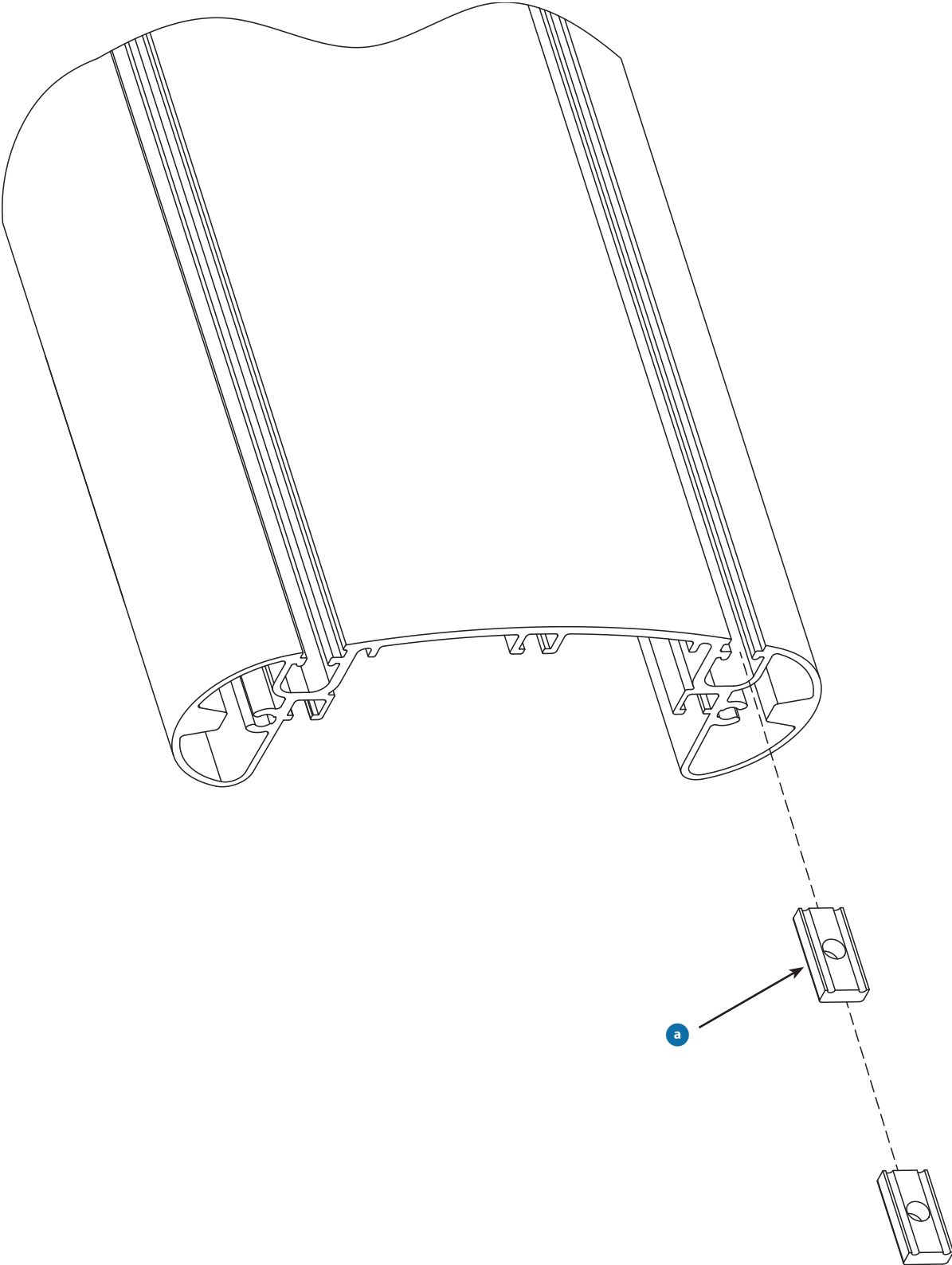
Item	Description	Part Number
a	DS / IDS End Cap Spare	1000SP00504
b	DS / IDS T-Piece Spare	1000SP00505



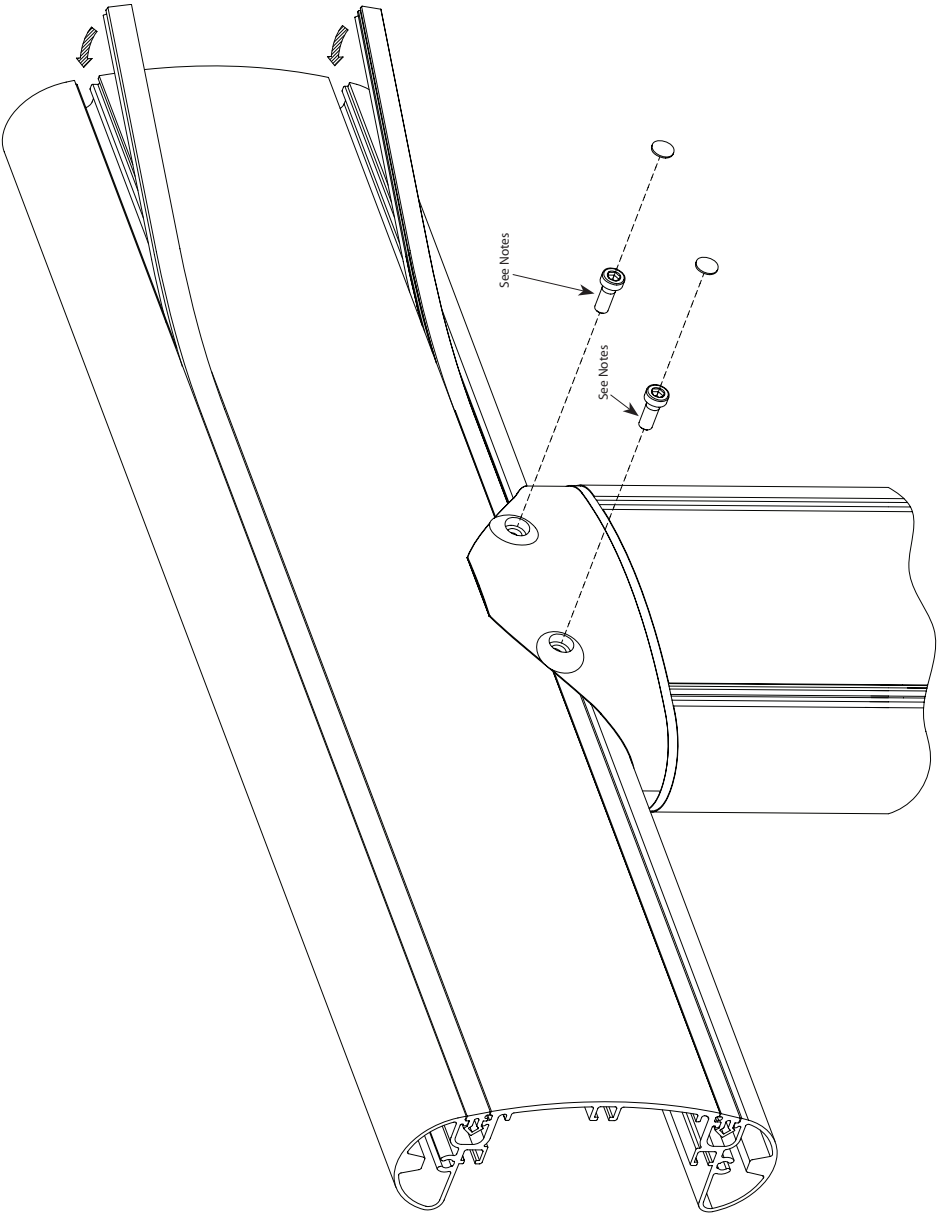
Notes

1. Apply Loctite 243 in accordance with manufacturer instructions.
2. Torque to 70cNm.

Item	Description	Part Number
a	DS / IDST-Piece Spare	1000SP00505



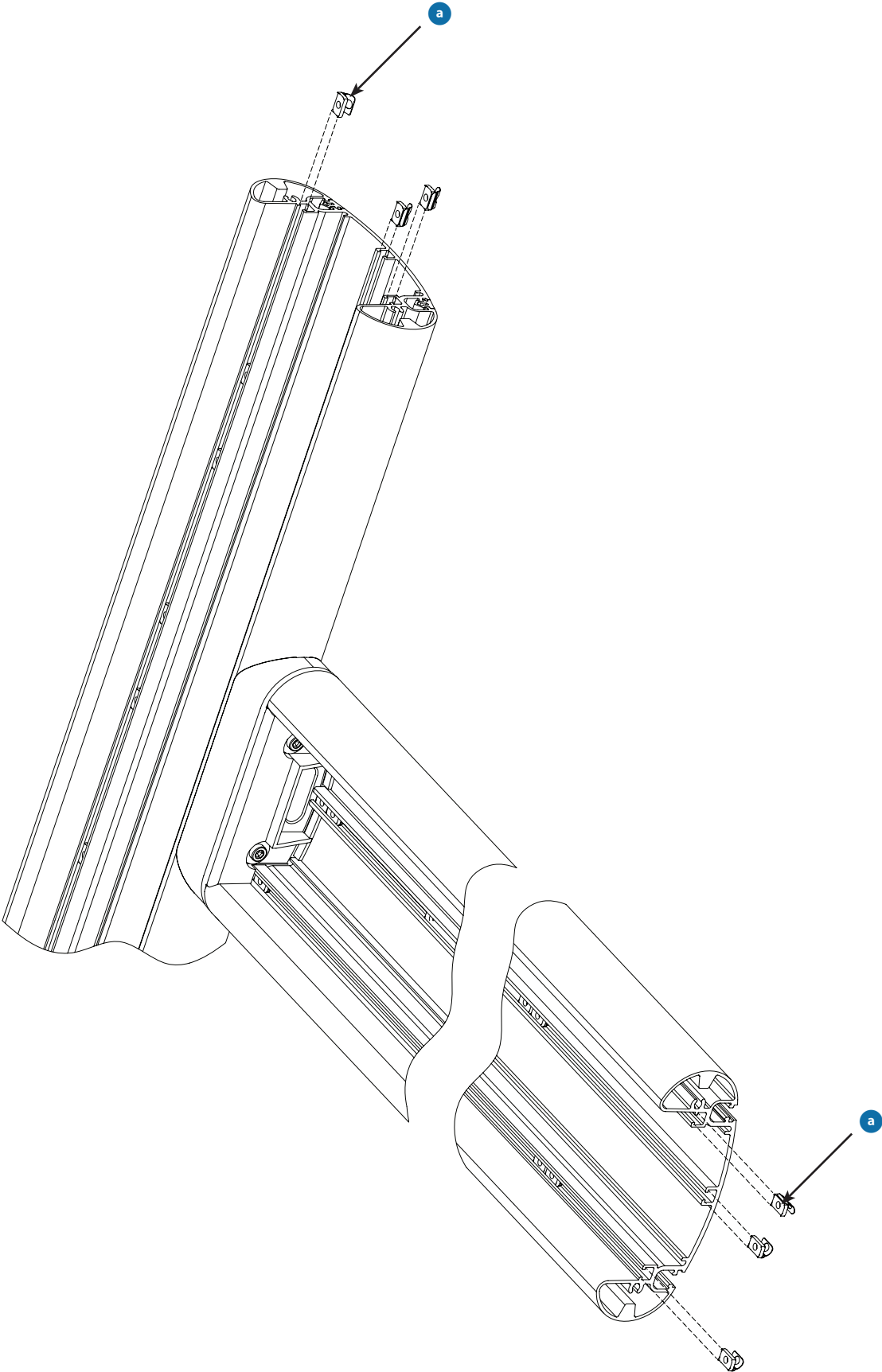
Item	Description	Part Number
a	Nut Square M6 DS	0000ME00432



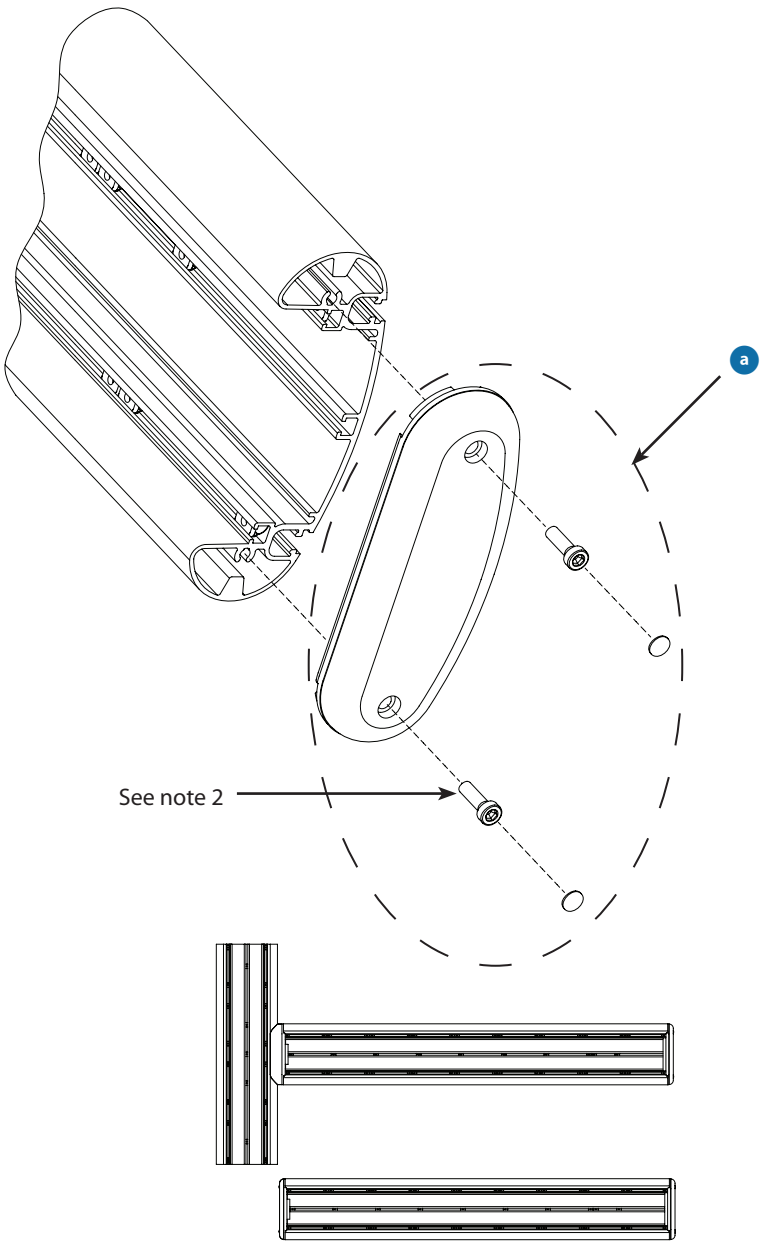
Notes

- 1. Sequence of assembly - Assemble Item **a** prior to fitting screws.
- 2. Apply Loctite 243 in accordance with manufacturer instructions.
- 3. Torque to 70cNm.

Item	Description	Part Number
a	DS/IDS Trim Strip Spare	1000SP00506
b	DS / IDS T-Piece Spare	1000SP00505



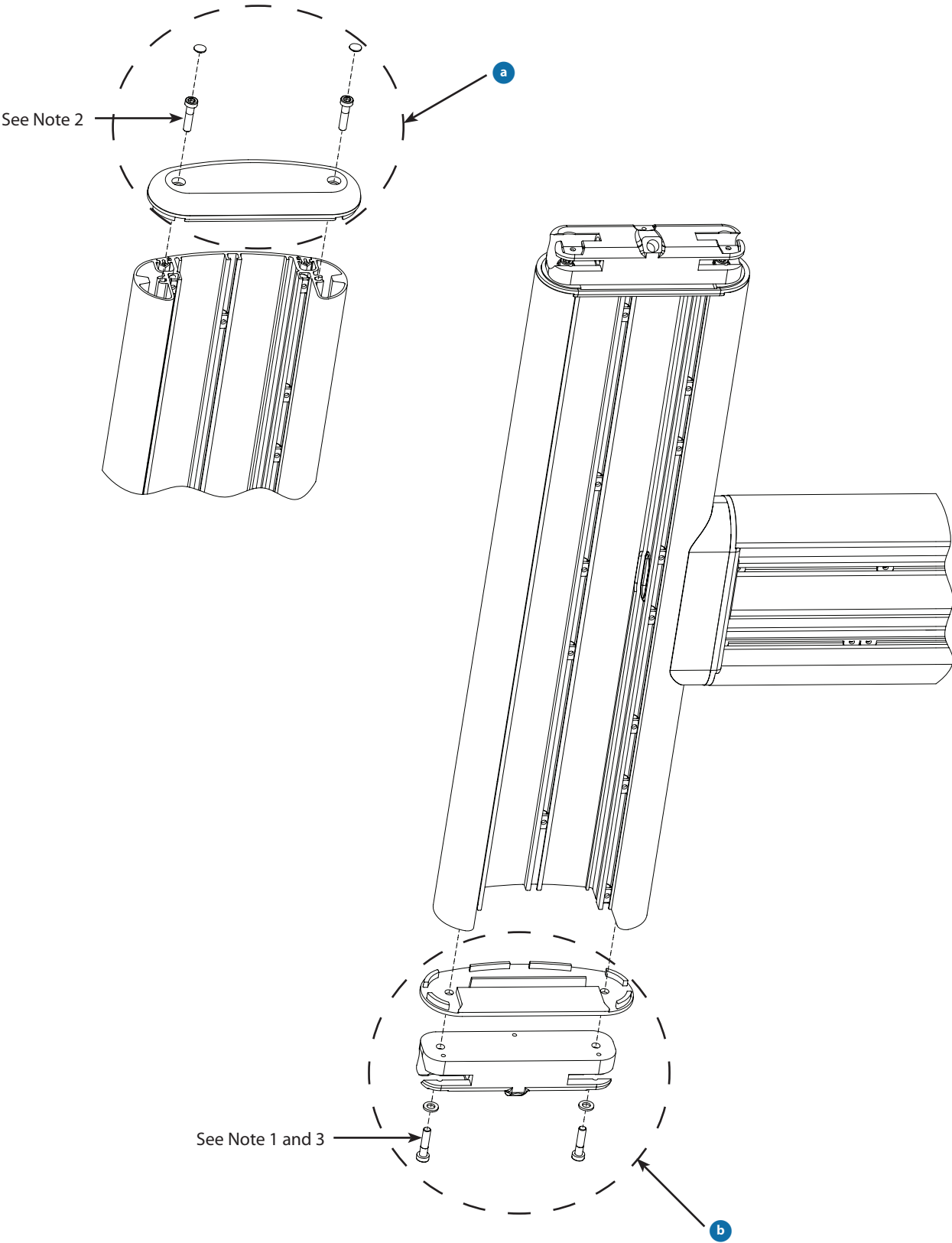
Item	Description	Part Number
a	DS Hardware Spare Kits	1000SP00511



Notes

- 1. Assemble Item **a** into extrusion base.
- 2. Torque to 70cNm.

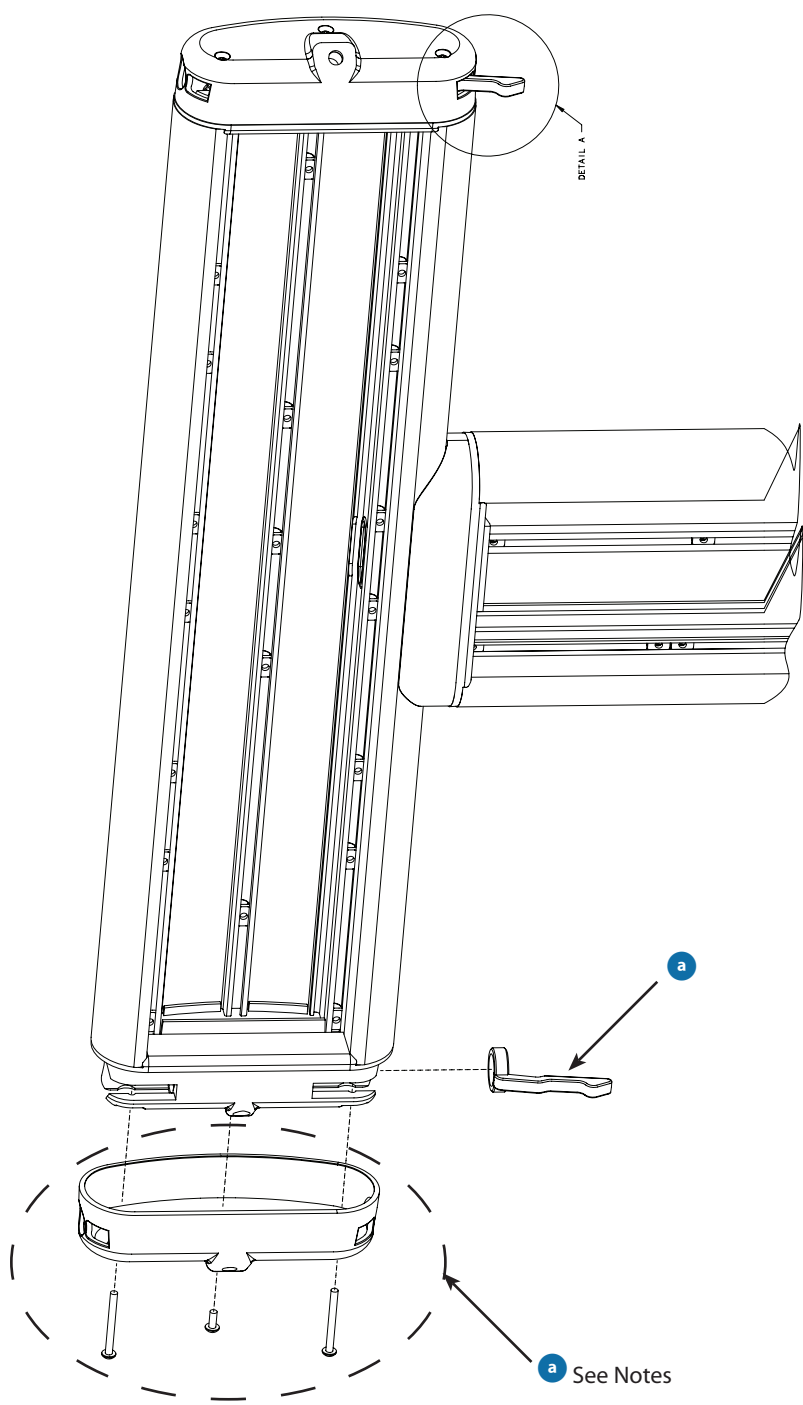
Item	Description	Part Number
a	DS / IDS End Cap Spare	1000SP00504



Notes

1. Apply Loctite 243 in accordance with manufacturer instructions.
2. Torque to 70cNm.
3. Torque to 140cNm.

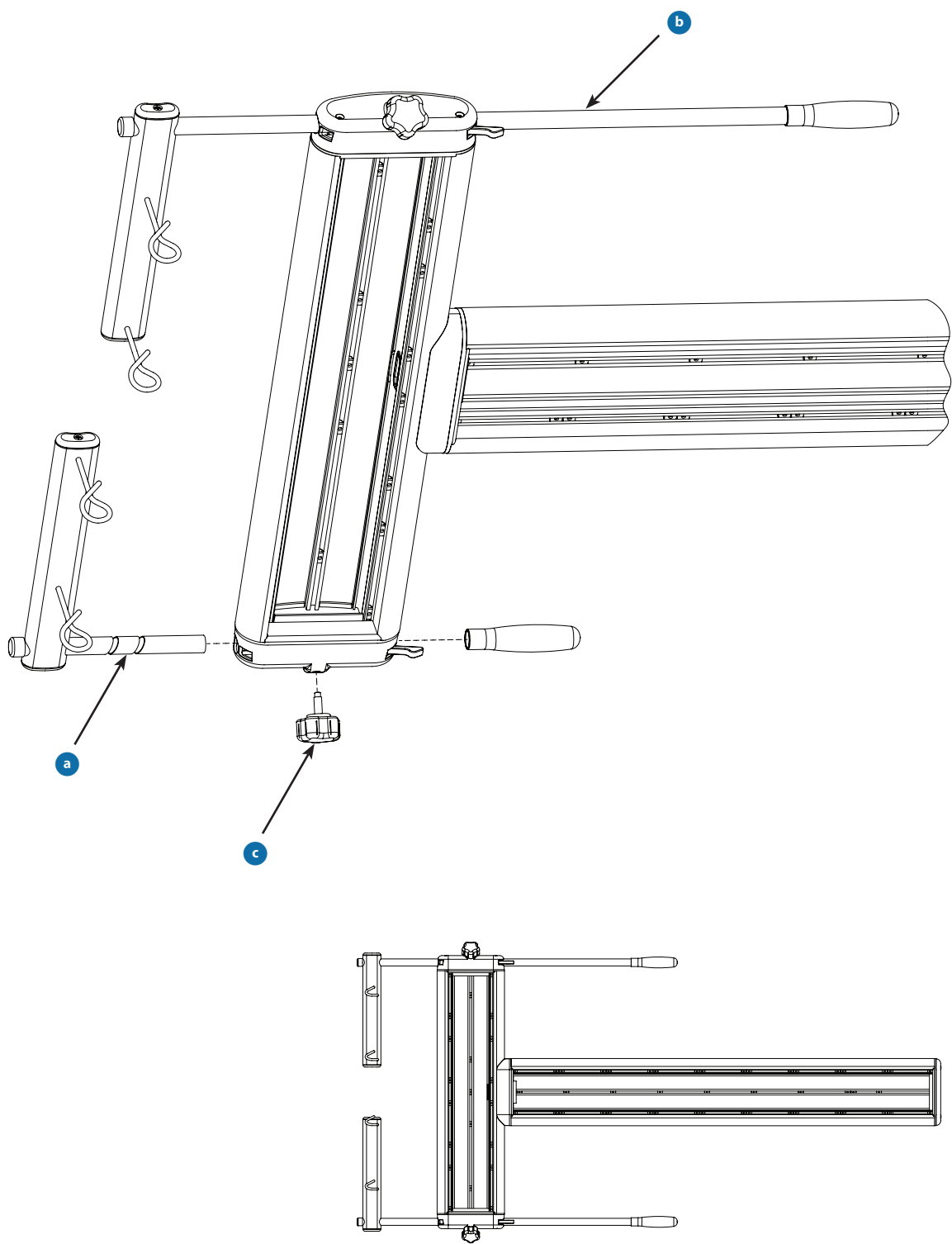
Item	Description	Part Number
a	DS / IDS End Cap Spare	1000SP00504
b	DS/IDS Pole Hanger Spare	1000SP00507



Notes

1. Apply Loctite 243 to screws in accordance with manufacturer instructions.
2. Torque all screws to 40cNm.
3. Ensure “leg” protudes through hole see Detail A.

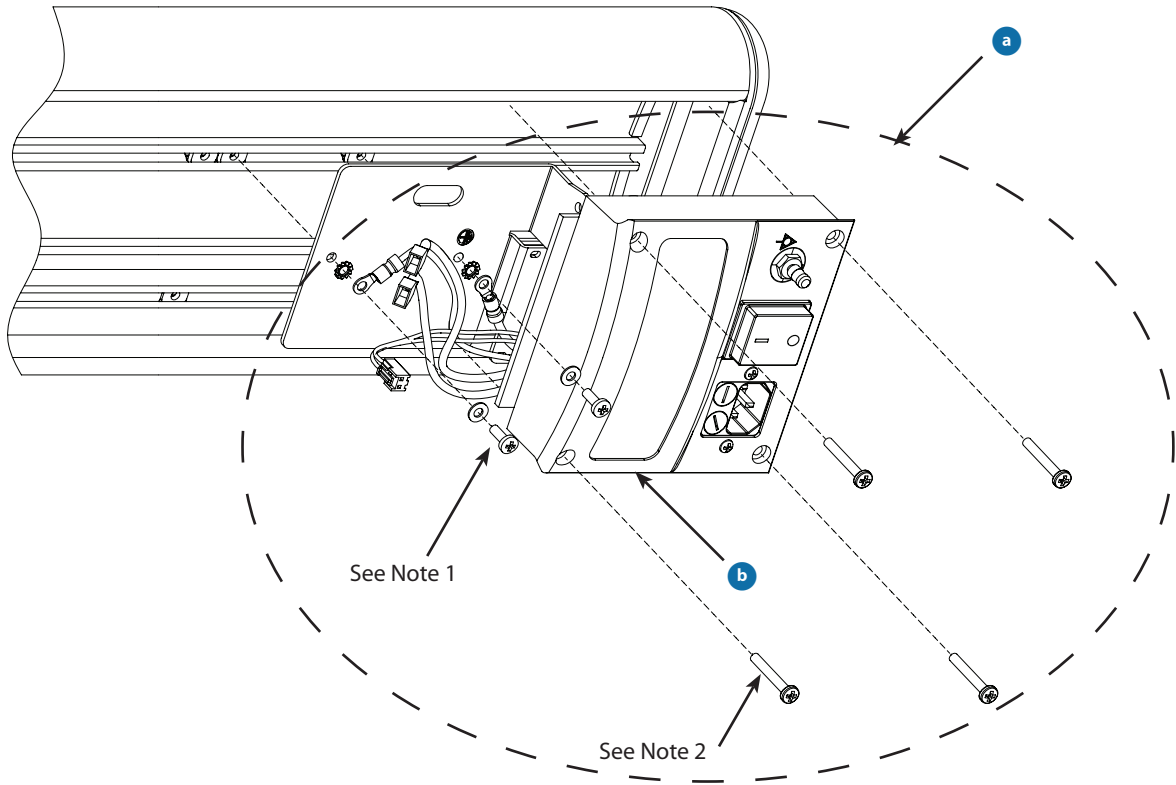
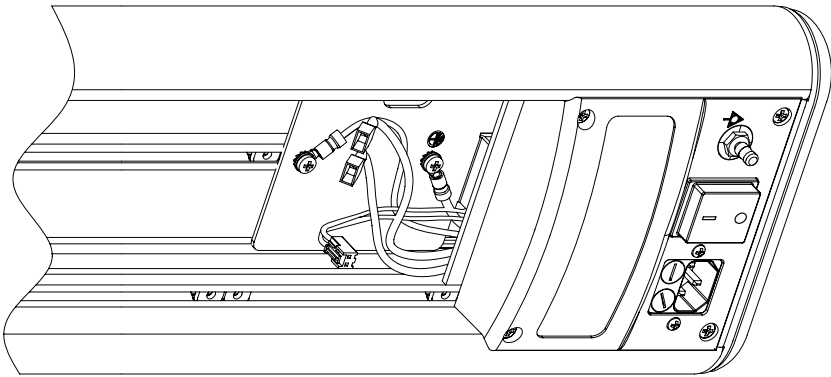
Item	Description	Part Number
a	DS/IDS Pole Hanger Spare	1000SP00507



Notes

- 1. Item **d** is not shown, it is used on configurations with 3 horizontal tiles.
- 2. Item **b** is used on configurations with 4 horizontal tiles.

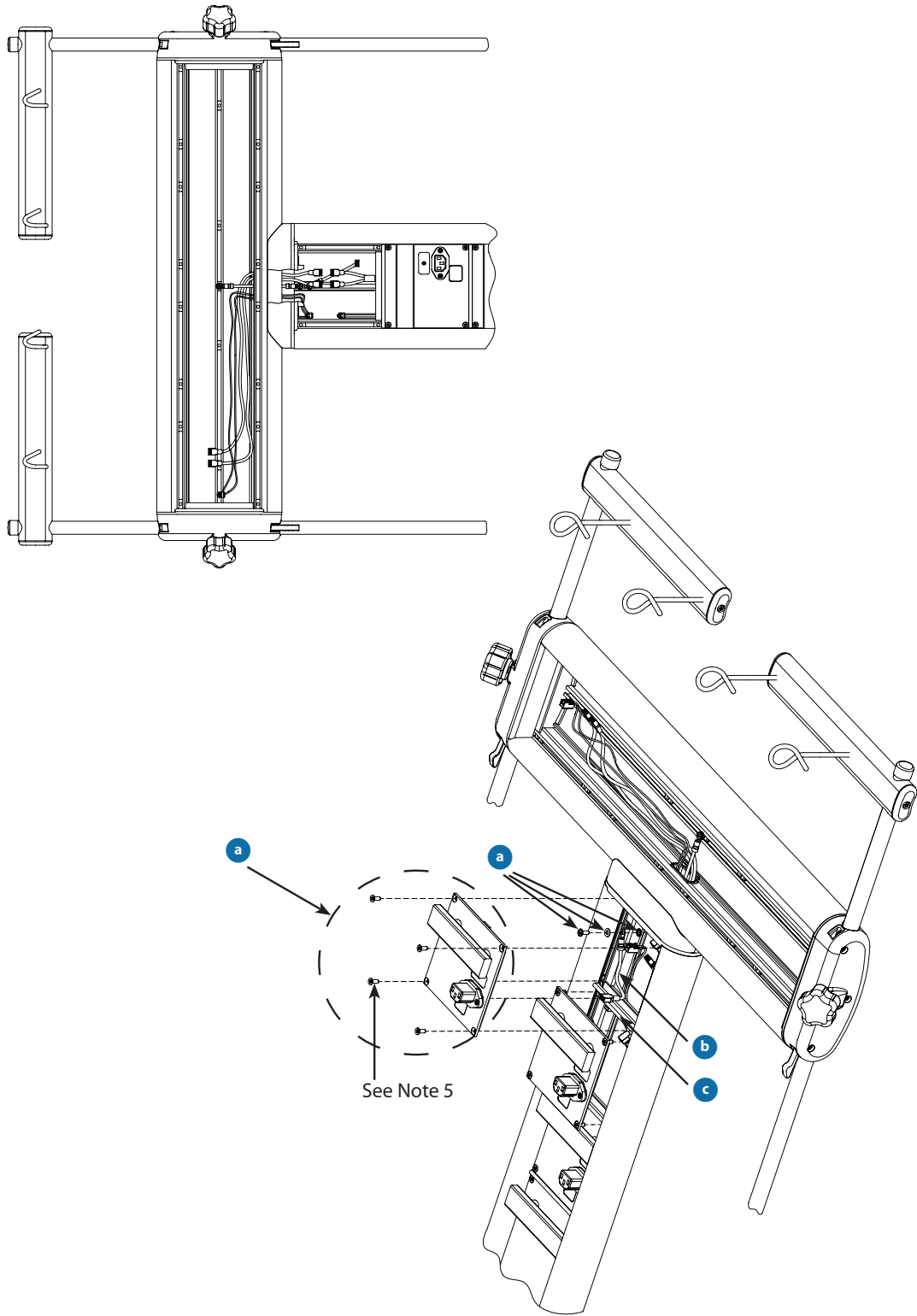
Item	Description	Part Number
a	DS 2 Way L/H Pole Hangar Spare	1000SP01482
b	DS/IDS 2 Way Pole Hanger Spare Right	1000SP00508
c	DS/IDS Pole Hanger Spare	1000SP00507
d	DS/IDS 3 Way Pole Hanger Spare	1000SP00509



Notes

1. Torque to 100cNm.
2. Torque to 40cNm.
3. Ensure no cables are trapped when installing PSU tile.
4. Ensure cover assembly is seated correctly before tightening fixing screws.
5. Orientation of crimps should be as shown.

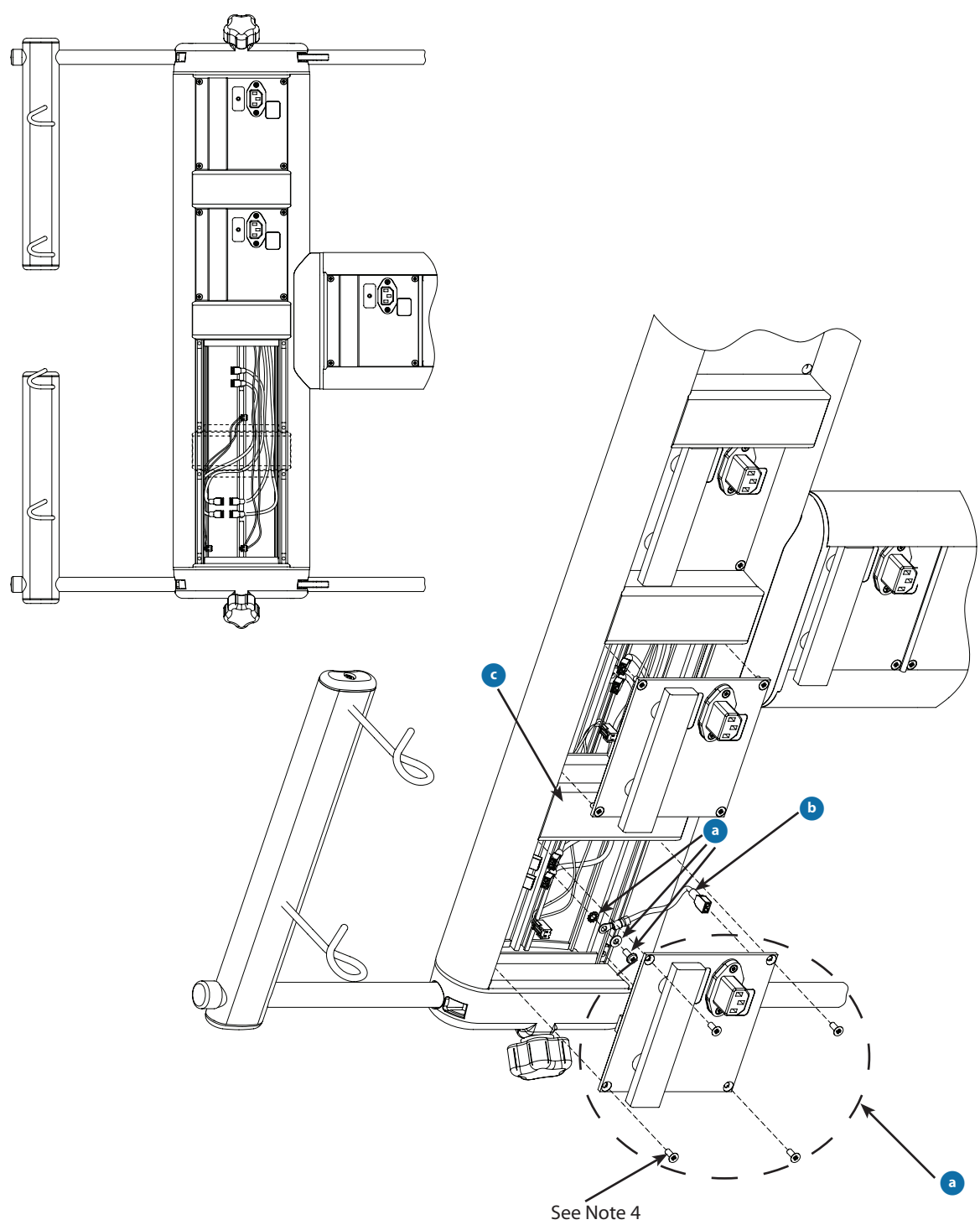
Item	Description	Part Number
a	DS PSU Spare	1000SP00503
b	DS Front Cover Spares Kit	1000SP00533



Notes

1. Place tile spacers **c** in position prior to fitting tiles.
2. Do not fully tighten tile fixing screws until all the tile assemblies are connected and in place.
3. Ensure no cables are trapped when fitting tile.
4. For connection details and cable selection see wiring diagram in this section.
5. Apply Loctite 243 in accordance with manufacturer instructions.
6. Torque all screws to 100cNm.

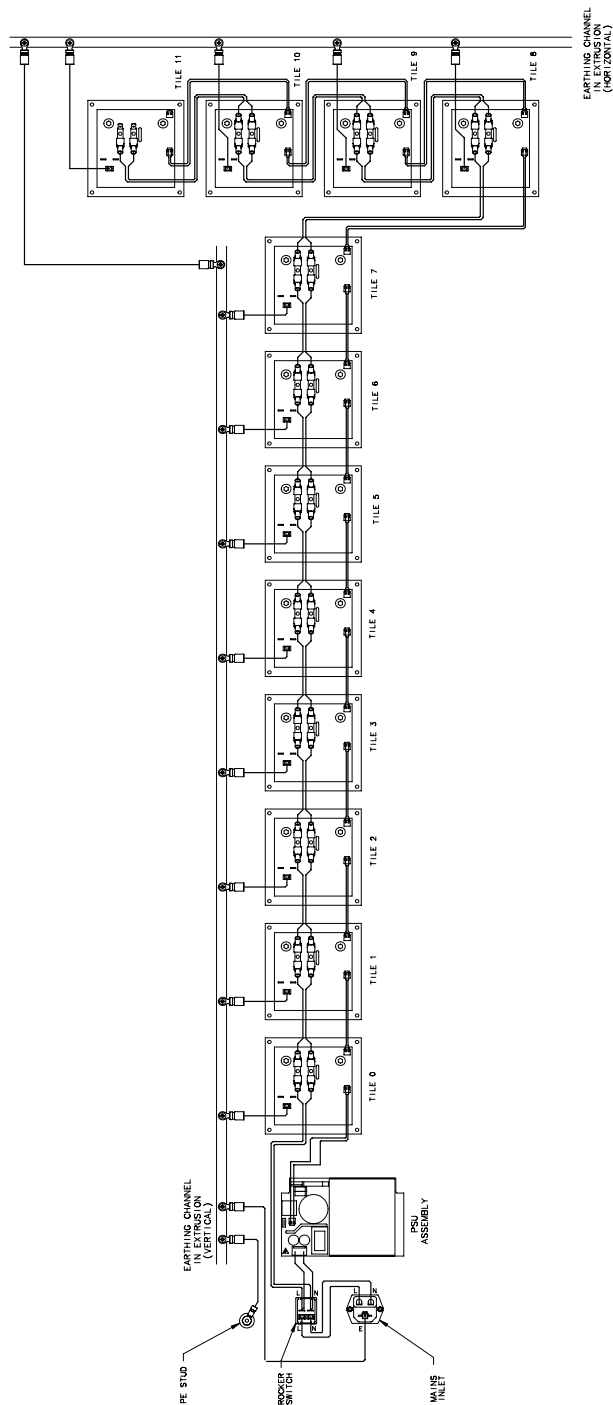
Item	Description	Part Number
a	DS Tile Board Spare	1000SP00502
b	DS Cable Kit Spare	1000SP00510
c	Spacer Vertical DS/IDS	1000ME00413



Notes

1. Place tile spacers **c** in position prior to fitting tiles.
2. Do not fully tighten tile fixing screws until all the tile assemblies are connected and in place.
3. Ensure no cables are trapped when fitting tile.
4. Apply Loctite 243 in accordance with manufacturer instructions.
5. Torque all screws to 100cNm.

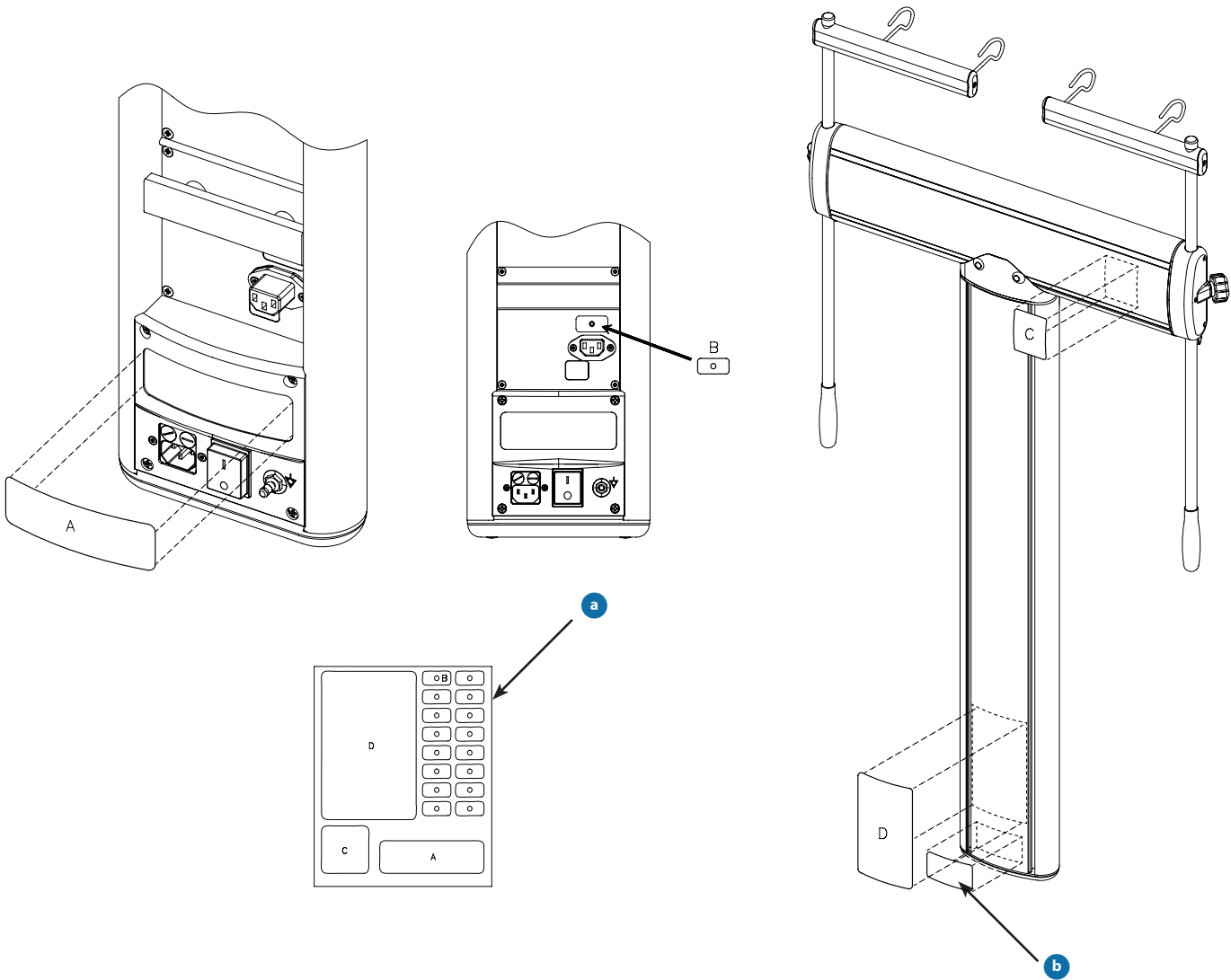
Item	Description	Part Number
a	DS Tile Board Spare	1000SP00502
b	DS Cable Kit Spare	1000SP00510
c	Spacer Horizontal DS/IDS	1000ME00409



Notes

- 1. This diagram shows maximum available configuration (8x4) other configurations reduce by relevant number of tiles accordingly.
- 2. Tiles are shown as viewed from rear.
- 3. This drawing is a schematic and is only intended as a representation of wiring positions.

Item	Description	Part Number
a	DS Cable Kit Spare	1000SP00510



Item	Description	Part Number
a	Alaris DS Label Set	1000LB01547
b	Label Protection Serial Number	1000LB00660

Spare Parts List

Part Number	Description
0000ME00432	Nut Square M6 DS
0000ME00522	M4 Captive Nut
0000ME00589	M4x10 Csk Rec A2 S/S M/C
0000ME00591	M6 Form A A2 S/S Washer (DIN125)
0000ME00595	M4x30 Rec Pan A2 S/S M/C
0000ME00596	M4x12 Rec Pan A2 S/S M/C
0000ME00619	Cover Cap For M5 DIN912 (039 0005 220 03)
0000ME00625	M4 Ext Fan Disc Washer A2 S/S
0000ME00626	1M4 Form A A2 S/S Washer
0000ME00630	M6x20 Csk Soc A2 S/S M/C
1000LB01447	Alaris DS Label Set
1000LB01547	Alaris DS Label Set
1000ME00408	End Cap Intermediate
1000ME00409	Spacer Horizontal DS / IDS
1000ME00413	Spacer Vertical DS/ IDS
1000ME00420	Casting End Cap Pole DS/IDS
1000ME00453	M6x25 Low Head A2-70 Cap Screw (DIN7984)
1000SP00108	Assy Cable DC Long DS/IDS
1000SP00113	Assy Cable Earth T-Section DS/IDS
1000SP00169	Assembly P/Clamp Docking Station Asena
1000SP00347	Assy Mains Inlet DS / IDS
1000SP00348	Assy Cable AC Power Short Asena DS/IDS
1000SP00349	Assy Cable AC Power Long Asena DS/IDS
1000SP00419	Assy T-Piece
1000SP00423	Tile Assy Asena DS
1000SP00436	Assembly Bag Hanger 2 Way L/H
1000SP00437	Assembly Bag Hanger 2 Way R/H
1000SP00438	Assembly Bag Hanger 3 Way L/H
1000SP00441	Extrusion Horizontal 2 Way DS/IDS
1000SP00442	Extrusion Horizontal 3 Way DS/IDS
1000SP00443	Extrusion Horizontal 4 Way DS/IDS
1000SP00502	DS Tile Board Spare
1000SP00503	DS PSU Spare
1000SP00504	DS / IDS End Cap Spare

Part Number	Description
1000SP00505	DS / IDS T-Piece Spare
1000SP00506	DS / IDS Trim Strip Spare
1000SP00507	DS / IDS Pole Hanger Spare
1000SP00508	DS / IDS 2 Way Pole Hanger
1000SP00509	DS / IDS 3 Way Pole Hanger
1000SP00510	DS Cable Kit Spare
1000SP00511	DS Hardware Spare Kits
1000SP00533	DS Front Cover Spares Kit
1000SP00655	Mounting Assy Kit Asena DS/IDS
1000SP01187	Mounting Kit Assembly DS Trolley
1000SP01482	DS 2 Way L/H Pole Hangar Spare

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